

OIL INDIA LIMITED
(A Government of India Enterprise)
P.O. Duliajan – 786602, Assam, India
Website: www.oil-india.com

Corrigendum No. 1 to IFB No. CPI8214P22

Construction of (G+5) New Asset Building at Duliajan including Electrification, HVAC, Gas & Water supply, Sanitary, Drainage, Road/Approach works and other ancillary services complete in all respect including Comprehensive Operation (for 3years) & Maintenance of the building (for 2 years after defect liability period) inside General Office & RCE Office Building Premises at FHQ, OIL, Duliajan, District - Dibrugarh (Assam)

1. This Corrigendum is issued to notify that NIT including Terms, conditions, specifications and stipulations of the Bidding Document shall stand modified to the extent indicated here below under column “Modified Clause” of **Annexure- I**.
2. Revised SOR/P for BOQ schedule is uploaded as attached in **Annexure- II** which is also available under “Notes and Attachment” Tab of e-Tender portal.
3. List of approved make for VRV /VRF system (Outdoor & Indoor Units) (Sl. No. 35, page 102 of 143, Volume-2) as part of Electrical Works is updated with inclusion of “Hitachi” Brand to be read in conjugation with TOW/SOW.
4. List of approved make for CCTV (Sl. No. 28, page 101 of 143, Volume-2) as part of Electrical Works is updated with inclusion of “Impulse” Brand to be read in conjugation with TOW/SOW.
5. All other terms and conditions of the tender remain unaltered.
6. All the prospective bidders are requested to regularly visit OIL’s Website: www.oil-india.com and e-procurement portal <https://etender.srm.oilindia.in/irj/portal> for further announcements/ latest information related to this tender

STATEMENT SHOWING EXISTING VIS-À-VIS MODIFIED PROVISIONS OF TERMS & CONDITIONS, SPECIFICATIONS IN VARIOUS SECTIONS OF BIDDING DOCUMENT

SL. No.	RFQ Section	CLAUSE NO.	Type	EXISTING PROVISION	MODIFIED PROVISIONS
1	Technical specifications under the Head: OPERATIONS & MAINTENANCE Sub head: Detailed description of the equipment provided (Page no.135 of 143)	1.2 Electrical Sub-Station:	Modification	1.2 Electrical Sub-Station: The Electrical Sub Station has following equipment's installed at different locations within Auditorium/substation Building. a. 1 Nos. HT Panel (11KV VCB & Switchgear Panel) b. 2 Nos. of Dry type Transformers of 500 KVA, 11/0.433kV, 50Hz. c. 1 No.s Main LT Panel 415V, 3 Phase d. 2 Nos. of DG with AMF Panel – 180 KVA & 320 KVA e. 1 No.s Auto Manual load management (For 2 Nos. DG Sets PLC system. DG Controller PCC 3.3) f. 1 No.s Building Panel g. 6 No.s Floor Distribution Panel h. 1 No.s UPS Panel i. 1 No.s Plumbing Panel j. 2 Nos. of capacitor bank 150 KVR k. LT distribution panels. l. 1 No. battery charger with battery bank for HT Panel m. 1 Nos. 60 KVA UPS System n. Distribution Boards	1.2 Electrical Sub-Station: The Electrical Sub Station has following equipment installed at different locations within Auditorium/substation Building. a. 1 No. HT Panel (11KV VCB & Switchgear Panel) b. 2 Nos. of cast resin Dry type Transformers of 1000 KVA , 11/0.433kV, 50Hz. c. 1 No. Main LT Panel 415V, 3 Phase d. 1 No. of 180 KVA DG set with AMF Panel. e. 1 No. Auto Manual load management (DG Sets PLC system. DG Controller PCC 3.3) f. 1 No. Building Panel g. 6 Nos. Floor Distribution Panel h. 1 No. UPS Panel i. 1 No. Plumbing Panel j. 2 Nos. of capacitor bank 150 KVR k. LT distribution panel. l. 1 No. battery charger with battery bank for HT Panel m. 1 Nos. 60 KVA UPS System n. Distribution Boards
2	4.0 Scope of work & Specifications of Main LT Panel (Page no. 21 of 143 & page no. 22 of 143)	5. Outgoing feeder	Modification	5. Outgoing feeder (A) 1 Nos. 160Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection (B) 3 Nos. 630Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection. (C) 2 Nos. 100Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection (D) 2 Nos. 800Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection.	5. Outgoing feeder (A) 1 2 Nos. 160Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection (B) 3 Nos. 630Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection. (C) 2 Nos. 100Amp, 4Pole MCCB(Ics=Icu) with minimum fault level of 36KA with microprocessor type release for O/C, S/C&E/F protection (D) 2 Nos. 800 Amp, 4Pole ACB, Microprocessor based. (E) 2 Nos. 1000 Amp, 4 Pole ACB, Microprocessor based.

PRICE BIDDING FORMAT						
	TENDER NO. :					
	BIDDER:					
Sl. No.	Description of Work : Construction of (G+5) New Asset Building at Duliajan including Electrification, HVAC, Gas & Water supply, Sanitary, Drainage, Road/Approach works and other ancillary services complete in all respect including Comprehensive Operation (for 3years) & Maintenance of the building (for 2 years after defect liability period) inside General Office & RCE Office Building Premises at FHQ, OIL, Duliajan, District - Dibrugarh (Assam)	Qty	UOM	Curr.	Rate	Total
Group A: CIVIL WORKS		X			Y	Z = X*Y
1	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up, in embankments for roads,flood banks, marginal banks, and guide banks etc., lead upto 50 m and lift upto 1.5 m : All kinds of soil	10.00	cum	INR		0.00
2	Earth work in excavation by mechanical means (Hydraulic excavator/manual means)over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, lead upto 50m and lift upto 1.5m, as directed by Engineer - in Charge All kinds of soil	4631.33	cum	INR		0.00
3	Earth work in excavation by mechanical means (Hydraulic excavator/manual means)over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, lead upto 50m and lift upto 1.5m, as directed by Engineer - in Charge Ordinary rock	231.57	cum	INR		0.00
4	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains over areas (not exceeding 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottoms , lift upto 1.5m , including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 m All kinds of soil	473.90	cum	INR		0.00
5	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	2125.43	cum	INR		0.00
6	Extra for every additional lift of 1.5 m or part thereof in excavation/banking excavated or stacked materials All kinds of soil	1324.55	cum	INR		0.00
7	Supplying and filling in plinth with sand under floors including, watering, ramming consolidating and dressing complete.	296.70	cum	INR		0.00
8	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground leveland removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	2407.18	sqm	INR		0.00
9	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/Lindane emulsifiable concentrate of 20%	1694.00	Litre	INR		0.00

10	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion): Along external wall where the apron is not provided using chemical emulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With Chlorpyrifos/Lindane E.C. 20% with 1% concentration.	174.00	metre	INR		0.00
11	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion): Treatment of soil under existing floors using chemical emulsion @ one liter per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 sand) to match the existing floor: With Chlorpyrifos/Lindane E.C. 20% with 1% concentration.	1694.00	sqm	INR		0.00
12	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level 1:4:8 (1 cement : 4 sand : 8 graded stone aggregate 40 mm nominal size)	2327.31	cum	INR		0.00
13	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work upto plinth level 1:5:10 (1 Cement : 5 sand : 10 graded stone aggregate 40 mm nominal size)	183.58	cum	INR		0.00
14	Providing and laying cement concrete in retaining walls, return walls,walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor five level, excluding the cost of centering, shuttering and finishing : 1:2:4 (1 Cement : 2 sand : 4 graded stone aggregate 20 mm nominal size)	23.87	cum	INR		0.00
15	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 sand: 4 graded stone aggregate 12.5 mm nominal size)	97.69	sqm	INR		0.00
16	Applying a coat of residual petroleum bitumen of penetration VG 10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	97.69	sqm	INR		0.00
17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	228.60	sqm	INR		0.00
18	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size)	5.00	cum	INR		0.00

19	<p>Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete.</p> <p>Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.</p> <p>All works upto plinth level</p> <p>Concrete of M30 grade with minimum cement content of 350 kg /cum</p>	1943.20	cum	INR		0.00
20	<p>Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete.</p> <p>Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.</p> <p>All works above plinth level upto floor V level</p> <p>Concrete of M25 grade with minimum cement content of 330 kg /cum</p>	3803.45	cum	INR		0.00
21	Extra for providing richer mixes at all floor levels. Providing M-30 grade concrete instead of M-25 grade BMC/ RMC.	1456.00	cum	INR		0.00
22	Extra for R.C.C./ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	1141.04	cum	INR		0.00
23	Add for using extra cement in the items of design mix over and above the specified cement content therein.	1875.49	Qtl	INR		0.00
24	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Foundations,footings,bases of columns including beams etc. for mass concrete	316.56	sqm	INR		0.00
25	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	5783.03	sqm	INR		0.00
26	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Suspended floors, roofs, landings, balconies and access platform	9928.54	sqm	INR		0.00
27	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Shelves (Cast in situ)	51.90	sqm	INR		0.00
28	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Lintels, beams, plinth beams, girders, bressumers and cantilevers	7412.20	sqm	INR		0.00
29	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Columns, pillars, piers, abutments, posts and struts	3825.60	sqm	INR		0.00

30	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Stairs,(excluding landings) except spiral-staircases.	416.70	sqm	INR		0.00
31	Centring and shuttering including strutting, propping etc. and removal of form for:removal of form for: Weather shade,chajjas,corbels etc inc	19.72	sqm	INR		0.00
32	Providing, hoisting and fixing upto floor five level precast reinforced cement concrete in lintels, beams and bressumers including setting in cement mortar 1:3 (1 cement : 3 sand), cost of required centering and shuttering and finishing smooth with 6 mm thick cement plaster 1:3 (1 cement: 3 fine sand) on exposed surfaces but excluding the cost of reinforcement with 1:2:4 (1 cement: 2 sand : 4 graded stone aggregate 20 mm nominal size).	24.84	cum	INR		0.00
33	Providing, hoisting and fixing upto floor five level precast reinforced cement concrete in lintels, beams and bressumers including setting in cement mortar 1:3 (1 cement : 3 sand), cost of required centering and shuttering and finishing smooth with 6 mm thick cement plaster 1:3 (1 cement: 3 fine sand) on exposed surfaces but excluding the cost of reinforcement with 1:2:4 (1 cement: 2 sand : 4 graded stone aggregate 20 mm nominal size).	3.79	cum	INR		0.00
34	Steel Reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo-Mechanically Treated bars of grade Fe 500 D or more	472552.18	Kg	INR		0.00
35	Steel Reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete above plinth level Thermo-Mechanically Treated bars of grade Fe 500 D or more	802536.61	Kg	INR		0.00
36	Providing precast cement concrete Jali 1:2:4 (1 cement: 2 sand : 4 graded stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild steel wire including centering and shuttering, roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc. complete excluding plastering of the jambs, sills and soffits. 50 mm thick	10.00	sqm	INR		0.00
37	Add or deduct for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	123.00	metre	INR		0.00
38	Extra for laying reinforced cement concrete in or under water and/ or liquid mud including cost of pumping or bailing out water and removing slush etc., complete.	10.00	cum	INR		0.00
39	Brick work with common burnt clay FPS (non modular)bricks of class designation 75 in foundation and plinth in: Cement mortar 1:4(1 cement : 4 sand)	168.66	cum	INR		0.00
40	Brick work with common burnt clay FPS (non modular) bricks of class designation 75 in Superstructure above plinth upto floor V level in all shapes and sizes in cement mortar 1:6 (1 cement : 6 sand) Cement mortar 1:6(1 cement : 6 sand)	841.65	cum	INR		0.00
41	Half brick masonry with common burnt clay FPS (non modular) bricks of class designation 7.5 in Superstructure above plinth upto floor V level Cement mortar 1:4 (1 cement : 4 sand)	5729.44	sqm	INR		0.00
42	Extra for providing and placing in position 2 Nos. 6mm dia MS bars at every 3rd course of half brick masonry	5729.44	sqm	INR		0.00
43	Providing and fixing 18 mm thick gang saw cut mirror polished, machine cut for kitchen platforms, vanity counters facias and fimilar locations of required size of approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 sand) with joints treated with white cement , mixed with matching pigment, epoxy touch ups, including rubbing, curing etc. complete at all levels.Granite of any colour and shade Area of slab over 0.50 sqm	182.04	sqm	INR		0.00
44	Extra for providing edge moulding to 18mm thick marble stone counters,Vanities etc. over Item No. 8.2 including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge Granite work	658.50	Metre	INR		0.00

45	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc.complete.	62.30	Metre	INR		0.00
46	Extra for providing opening of required size & shape for wash basins/kitchen sink in kitchen platform, vanity counters and similar location in marble/stone work including necessary holes for pillar taps etc .including rubbing and polishing of cut edges etc. complete.	53.00	each	INR		0.00
47	Stone tile (polished) work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 sand) and cement slurry @ 3.3 kg/sqm including pointing in white cement complete. 8 mm thick Granite of any colour and shade	1116.75	sqm	INR		0.00
48	Providing and fixing dry cladding upto 10 metre heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately). Red sand stone - 30mm thick gang saw cut stone	225.36	sqm	INR		0.00
49	Providing and fixing dry cladding upto 10 metre heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately). White sand stone - 30mm thick gang saw cut stone	525.84	sqm	INR		0.00
50	Providing and fixing structural steel frame (for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per architectural drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of M.S. brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1 cement :2 sand :4 graded stone aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by Engineerin- charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-charge for approval before execution). The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid).	336.15	kg	INR		0.00
51	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	750.00	each	INR		0.00
52	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position: Second class teak wood	12.16	Cum	INR		0.00
53	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge Second class teak wood 35 mm thick shutters	37.80	sqm	INR		0.00

54	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :Second class teak wood	37.80	sqm	INR		0.00
55	Providing and fixing factory made laminated veneer lumber glazed shutter conforming to IS: 14616 and TADS 15:2001 (Part B), using 4 mm thick float glass panes for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, all as per directions of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)	183.54	sqm	INR		0.00
56	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete 125x64x1.90 mm	294.00	each	INR		0.00
57	Providing and fixing ISI marked flush door shutters decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	5.00	sqm	INR		0.00
58	Providing and fixing ISI marked flush door shutters non -decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	6.30	sqm	INR		0.00
59	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured)	6.30	sqm	INR		0.00
60	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws : 35 mm thick shutters with ISI marked M.S. pressed butt hinges bright finished of required size Second class teak wood	5.00	sqm	INR		0.00
61	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding	248.31	kg	INR		0.00
62	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	77.00	each	INR		0.00
63	Providing and fixing aluminium sliding door bolts, ISI marked anodised anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : 300x16mm	77.00	each	INR		0.00
64	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete- 250 X 10 mm	318.00	each	INR		0.00
65	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-200X 10 mm	320.00	each	INR		0.00
66	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-150X 10 mm	10.00	each	INR		0.00
67	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-125 mm	158.00	each	INR		0.00

68	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc. complete-75 mm	10.00	each	INR		0.00
69	Providing and fixing aluminium hanging floor door stopper, ISI marked,anodised (anodic coating not less than grade AC 10 as per IS : 1868)transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper	320.00	each	INR		0.00
70	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of Aluminium lever handles with necessary screws etc. complete (best make of approved quality)	146.00	each	INR		0.00
71	Providing and fixing factory made PVC door frame of size 50x47 mm with a wall thickness of 5 mm. made out of extruded 5 rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15mm M.S. square tube,the vertical door profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge,EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size complete as per manufactures specification and direction of Engineer-in-charge	381.15	metre	INR		0.00
72	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing. 30 mm thick prelaminated PVC door shutters	121.28	Sqm	INR		0.00
73	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 12 mm mild steel U beading	304.27	sqm	INR		0.00
74	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position with necessary stainless steel screws etc.Kiln seasoned and chemically treated hollock wood	0.05	cum	INR		0.00
75	Providing and fixing cup board shutters 25 mm thick, with Pre-laminated flat pressed three layer particle board or graded wood particle board IS: 12823 marked, exterior grade (Grade I Type II), having one side decorative lamination and other side balancing lamination, including IInd class teak wood lipping of 25 mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of the Engineer-in-Charge	4.50	sqm	INR		0.00

76	Providing and fixing Pre-laminated medium density fibre board IS: 14587:1998 marked, with one side decorative lamination other side balancing lamination Grade-I(exterior grade) in shelves with screws and fittings wherever required, edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand (fittings to be paid separately). Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	20.70	sqm	INR		0.00
77	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	30.00	each	INR		0.00
78	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete. Double strip (horizontal type)	30.00	each	INR		0.00
79	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet (Zinc coating not less than 120gm/ m²) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m³ . The frame will have a provision of G.I. Anchor fastners 14 nos (5 each on vertical style & 4 on horizontal style of size M10 x 80) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter . The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in- charge . (Cost of SS ball bearing hinges is excluded).	104.40	metre	INR		0.00
80	Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m²) duly filled mineral wool insulation having density min 96 kg/ m³ and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in-charge (panelling to be paid for seperately)	45.36	sqm	INR		0.00
81	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m²) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/ powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per NBC 2016, IS 16231 (Part 3):2016 and as per direction of Engineer-incharge with glass of required thickness having 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 20 minutes of insulation (EI20). The manufacturer have to give test report/certification of fire glass and the glass should have the stamp showing the value of E, EW & EI. The glass shall be tested in approved NABL accredited lab or by any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes shall be eligible. The maximum glazing size shall not be more than 1100x2200 mm (w x h) or 2.42 sqm.	6.48	sqm	INR		0.00
82	Providing and fixing panic bar / latch (Double point) fitted with a single body, Trim Latch & Lock on back side of the Panic Latch of reputed brand and manufacture to be approved by the Engineer- in- charge, all complete.	12.00	each	INR		0.00

83	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete. 125 mm	314.00	each	INR		0.00
84	Structural steel work in single section fixed without connecting plate including cutting hoisting, fixing in position & applying priming coat of approved steel primer all complete.	100.00	kg	INR		0.00
85	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40xmm angle iron and 3mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.Using M.S. angels 40x40x6mm for diagonal braces.	11.34	sqm	INR		0.00
86	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5cm long wire springs grade No.2 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover	26.01	sqm	INR		0.00
87	Providing and fixing ball bearing for rolling shutters.	8.00	each	INR		0.00
88	Extra for providing grilled rolling shutters manufactured out of 8 mm dia. M.S. bar instead of laths as per design approved by Engineer-in-Charge. (area of grill to be measured.)	26.01	sqm	INR		0.00
89	Providing and fixing pressed steel door frames conforming to IS: 4351,manufactured from commercial mild steel sheet of 1.60 mm thickness,including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm thick with mortar guards, lock strikeplate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineerin-charge: Profile C Fixing with adjustable lugs with split end tail to each jamb	10.60	metre	INR		0.00
90	Providing and fixing circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp of internal dia 140mm, 73mm height, top lid of 1.5mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3mm dia. round headed screws, one lock at the corners. Clamp shall be made of 12mm dia M.S. bar bent to shape as per standard drawing.	200.00	each	INR		0.00
91	Steel work welded in built-up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	55.00	Kg.	INR		0.00
92	Steel work welded in built-up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required In gratings, frames, guard bar, ladders, balcony and staircase railings, brackets, gates and similar works	1877.75	Kg.	INR		0.00
93	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	3960.00	Kg.	INR		0.00

94	62 mm thick cement concrete flooring with concrete hardener topping under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick Hardcrete cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 stone aggregate 6 mm nominal size) by volume with which Hardcrete hardening compound of Snowcem India Ltd. or equivalent is mixed @ 2 litre Hardcrete per 50kg of cement including cement slurry, but excluding the cost of nosing of steps etc. complete	1475.50	sqm	INR		0.00
95	Cement plaster skirting (upto 30cm height) with cement mortar 1:3 (1 cement 3 sand) finished with a floating coat of neat cement. 18mm thick	165.93	sqm	INR		0.00
96	Providing and fixing glass strips in joints of terrazo/ cement concrete floors. 40 mm wide and 4 mm thick	4057.63	m	INR		0.00
97	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 sand) :25 mm thick	286.36	sqm	INR		0.00
98	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	10.00	sqm	INR		0.00
99	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	50.00	metre	INR		0.00
100	Extra for Kota stone/ sand stone in treads of steps and risers using single length up to 1.05 metre.	10.00	sqm	INR		0.00
101	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 sand) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	2576.85	Sqm	INR		0.00
102	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 sand), including pointing the joints with white cement and matching pigments etc.,complete.	77.70	Sqm	INR		0.00
103	Providing and laying polished vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS: 15622 of approved make in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 80x80 cm	6528.22	Sqm	INR		0.00
104	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser ofsteps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 sand), including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 80x80 cm	979.23	Sqm	INR		0.00
105	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge. Size of Tile 80x80 cm	6528.22	Sqm	INR		0.00

106	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge: Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	1969.32	Sqm	INR		0.00
107	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge. Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	1210.04	sqm	INR		0.00
108	Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge. With granite stone of area less than 0.50 sqm.	136.00	sqm	INR		0.00
109	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	25.00	each	INR		0.00
110	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes. 75 mm diameter	12.00	metre	INR		0.00
111	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes. 110 mm diameter	511.60	metre	INR		0.00
112	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion Coupler 75 mm diameter	3.00	each	INR		0.00
113	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion Coupler 110 mm diameter	250.00	each	INR		0.00
114	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion Single tee without door -75x75x75 mm	3.00	each	INR		0.00
115	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion Single tee without door -110x110x110 mm	25.00	each	INR		0.00

116	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion Bend 87.5° -75 mm bend	3.00	each	INR		0.00
117	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion Bend 87.5°-110 mm bend	25.00	each	INR		0.00
118	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 sand)and making good the wall etc. complete. 75 mm	12.00	each	INR		0.00
119	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 sand)and making good the wall etc. complete. 110 mm	511.00	each	INR		0.00
120	<p>Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spintone/cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level,suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum)</p> <p>sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture (Spintone / Cosmos/hexa) in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge.</p>	6978.22	sqm	INR		0.00

121	Providing and fixing GI Clip in Metal Ceiling System of 600x600 mm module which includes providing and fixing 'C' wall angle of size 20x30x20 mm made of 0.5 mm thick pre painted steel along the perimeter of the room with help of nylon sleeves and wooden screws at 300 mm center to centre, suspending the main C carrier of size 10x38x10 mm made of G.I steel 0.7 mm thick from the soffit with help of soffit cleat 37x27x25x1.6 mm, rawl plugs of size 38x12 mm and carrier suspension clip and main carrier bracket at 1000 mm c/c. Inverted triangle shaped Spring Tee having height of 24 mm and width of 34 mm made of GI steel 0.45 mm thick is then fixed to the main C carrier and in direction perpendicular to it at 600 mm centers with help of suspension brackets. Wherever the main C carrier and spring T have to join, C carrier and spring T connectors have to be used. All sections to be galvanized @ 120 gms/sqm (both side inclusive), fixing with clip in tiles into spring T with GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of G I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation	662.80	sqm	INR		0.00
122	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.	1525.00	sqm	INR		0.00
123	Providing and fixing thermal insulation with Resin bonded rock wool conforming to IS: 8183, density 48 kg/m ³ , 50 mm thick, wrapped in 200 G virgin Polythene bags placed over existing false ceiling and held in position by criss-crossing GI wire.	1360.00	sqm	INR		0.00
124	12mm cement plaster of mix: 1:4 (1 cement : 4 fine sand)	8188.22	sqm	INR		0.00
125	15mm cement plaster of mix: 1:4 (1 cement : 4 fine sand)	6825.16	sqm	INR		0.00
126	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	2384.12	sqm	INR		0.00
127	6mm cement plaster to ceiling of mix: 1:3 (1 cement : 3 fine sand)	12224.79	sqm	INR		0.00
128	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers. (Payment shall be made per bag of 50 kg cement used).	450.00	bag	INR		0.00
129	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	1430.47	SQM	INR		0.00
130	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	13843.96	SQM	INR		0.00
131	White washing with lime to give an even shade New work(three or more coats)	14701.59	sqm	INR		0.00
132	Colour washing such as green, blue or buff to give an even shade New work (two or more coats) with a base coat of white washing with lime	10.00	sqm	INR		0.00
133	Finishing walls with 100% Premium acrylic emulsion paint having VOC less than 50 gm/litre and UV resistance as per IS 15489:2004, Alkali & fungal resistance, dirt resistance exterior paint of required shade (Company Depot Tinted) with silicon additives.New work (Two or more coats applied @ 1.43 litre/ 10 sqm. Over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm.	13843.96	sqm	INR		0.00

134	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	25.00	sqm	INR		0.00
135	Applying priming coat With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	51.48	sqm	INR		0.00
136	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	222.35	sqm	INR		0.00
137	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	222.35	sqm	INR		0.00
138	Finishing walls with water proofing cement paint of required shade New work (Two or more coats applied @ 3.84 kg/10 sqm)	10.00	sqm	INR		0.00
139	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade Two or more coats on new work.	273.83	sqm	INR		0.00
140	French spirit polishing Two or more coats on new works including a coat of wood filler complete	100.72	sqm	INR		0.00
141	6 mm plaster on cement concrete or reinforced cement concrete work with white cement based polymer modified self curing mortar of approved make as per the direction of Engineer-In-Charge.	2313.60	sqm	INR		0.00
142	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	245.17	cum	INR		0.00
143	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.	150.00	cum	INR		0.00
144	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified , excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). 500 mm dia piles	10116.00	Rm	INR		0.00
145	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge. Group of two or more piles upto 50 tonne Safe capacity Initial test (Test Load 2.5 times the Safe capacity)	6.00	per test	INR		0.00
146	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge/Anchor piles method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge. Group of two or more piles upto 50 tonne Safe capacity Routine test (Test Load 1.5 times the Safe capacity)	6.00	per test	INR		0.00
147	Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile Upto 50 tonne capacity pile	6.00	per test	INR		0.00
148	Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge	562.00	per test	INR		0.00

149	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for separately):For fixed portion. Powder coated aluminium (minimum thickness of powder coating 50 micron)	7126.83	Kg.	INR		0.00
150	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)Powder coated aluminium (minimum thickness of powder coating 50 micron)	7850.30	Kg.	INR		0.00
151	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.50 mm thickness (weight not less than 12.50 kg/ sqm)	746.80	Sqm	INR		0.00
152	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width	1458.00	mtr.	INR		0.00
153	Providing and fixing stainless steel (SS-304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete. 510X19mm	10.00	Each	INR		0.00
154	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	10.00	kg	INR		0.00
155	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portion of toilet and kitchen and the like consisting of: (i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area. (iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	494.55	Sqm	INR		0.00

156	<p>Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:</p> <p>(a) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment.</p> <p>(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs</p> <p>(c) After two days of proper curing applying a second coat of cement slurry using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge.</p> <p>(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep.</p> <p>(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge : With average thickness of 120mm and minimum thickness at khurra as 65 mm.</p>	1632.64	Sqm	INR		0.00
157	<p>Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thicknessof complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.</p>	303.25	Sqm	INR		0.00
158	<p>Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metalliccontacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof.</p>	208.00	sqm	INR		0.00

159	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approvedshades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.	304.00	sqm	INR		0.00
160	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account) complete	2432.00	kg	INR		0.00
161	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	33.00	Each	INR		0.00
162	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required : With drain Board 510x1040 mm bowl depth 200 mm with PVC waste Pipe 40 mm dia	10.00	Each	INR		0.00
163	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	89.00	Each	INR		0.00
164	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.Flexible pipe 32 mm dia	10.00	Each	INR		0.00
165	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40mm long screws,rawl plugs etc., complete	2.00	Each	INR		0.00
166	Providing and fixing uplasticised PVC connection pipe with brass unions : 45 cm length 15 mm nominal bore	2.00	Each	INR		0.00
167	Providing and Fixing shower rose with 15 or 20mm inlet 150mm diameter	2.00	Nos.	INR		0.00
168	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 : a)15 mm nomial bore	12.00	Nos.	INR		0.00
169	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.(kitchen) 15 mm nominal bore	12.00	Nos.	INR		0.00
170	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore	159.00	Nos.	INR		0.00
171	Providing & Fixing CP Brass Single Lever Telephonic Wall Mixer of quality and make as approved by Engineer in Charge. (a) 15 mm Nominal Bore	1.00	Each	INR		0.00
172	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	11.00	Each	INR		0.00

173	Providing and Fixing Chlorinated Polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with supports, clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer-In-Charge. Concealed work including cutting chases and making good the walls etc. 20 mm dia	250.00	Metre	INR		0.00
174	(CPVC) Pipes Concealed work 25 mm dia	530.00	Metre	INR		0.00
175	(CPVC) Pipes Concealed work 32 mm dia	530.00	Metre	INR		0.00
176	Providing and fixing G.I. pipes complete withh G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall and terrace- 20mm dia	15.00	Metre	INR		0.00
177	Providing and fixing G.I. pipes complete withh G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall and terrace- 25mm dia	80.00	Metre	INR		0.00
178	Providing and fixing G.I. pipes complete withh G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall and terrace- 32mm dia	30.00	Metre	INR		0.00
179	Providing and fixing G.I. pipes complete withh G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall and terrace- 40mm dia	150.00	Metre	INR		0.00
180	Providing and fixing G.I. pipes complete withh G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall and terrace- 50mm dia	85.00	Metre	INR		0.00
181	Providing and fixing G.I. pipes complete withh G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall and terrace-65mm dia	80.00	Metre	INR		0.00
182	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : 50 to 80 mm nominal bore	10.00	Nos.	INR		0.00
183	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-20 mm nominal bore	3.00	each	INR		0.00
184	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-25 mm nominal bore	15.00	each	INR		0.00
185	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-32 mm nominal bore.	18.00	each	INR		0.00
186	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-40 mm nominal bore	3.00	each	INR		0.00
187	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-50 mm nominal bore	7.00	each	INR		0.00
188	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-65mm nominal bore	3.00	each	INR		0.00
189	Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end)-80 mm nominal bore	1.00	each	INR		0.00
190	Providing and fixing gun metal non-return valve of approved quality (screwed end) Providing and fixing gun metal non-return valve of approved quality (screwed end)65 mm nominal bore Horizontal	2.00	each	INR		0.00
191	Cutting holes upto 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement :2 sand :4 graded stone aggregate 20mm nominal size) including finishing complete so as to make it leak proof.	5.00	each	INR		0.00
192	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Single Push fit coupler-75 mm diameter	20.00	Nos.	INR		0.00

193	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Single Push fit coupler-110 mm diameter	20.00	Nos.	INR		0.00
194	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Shoe (Plain)-75 MM DIA	20.00	each	INR		0.00
195	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Shoe (Plain)-110 mm dia	20.00	each	INR		0.00
196	Providing and Fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less then 440 grams.	5.00	Nos.	INR		0.00
197	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 30 cm girth upto and including 60 cm girth	3.00	Nos.	INR		0.00
198	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 60 cm girth upto and including 120 cm girth	4.00	Nos.	INR		0.00
199	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond 120 cm girth upto and including 240 cm girth	8.00	Nos.	INR		0.00
200	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres.	2700.00	Sqm	INR		0.00
201	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge. With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	540.00	cum	INR		0.00
202	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.	202.50	cum	INR		0.00

203	Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints (10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately) Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	472.50	cum	INR		0.00
204	Providing and fixing in position pre-moulded joint filler in expansion joints (Payment will be made per cm width, per cm depth, per m length)	16200.00	Metre	INR		0.00
205	Providing and laying in position bitumen hot sealing compound for expansion joints etc.(Payment will be made per cm width, per cm depth, per m length)	16200.00	Metre	INR		0.00
206	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	9.00	cum	INR		0.00
207	Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.	300.00	metre	INR		0.00

208	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge. 60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	200.00	Sqm	INR		0.00
209	80 mm thick C.C. paver block of M-30 grade with approved color design and pattern.	900.00	sqm	INR		0.00
210	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	36.00	sqm	INR		0.00
211	Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways , neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick , 100 mm wide MS sheet duly painted over priming coat , reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.	22.50	cum	INR		0.00
212	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete : 300 mm dia. R.C.C. pipe	50.00	m	INR		0.00
213	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete 450 mm dia. R.C.C. pipe	30.00	m	INR		0.00
214	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete 600 mm dia. R.C.C. pipe	20.00	m	INR		0.00
215	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.All types of soil 300mm dia	30.00	Metre	INR		0.00
216	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC (Slotted / Plain pipe) medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge 150 mm nominal size dia	30.00	mtr	INR		0.00
217	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	11.93	Cum	INR		0.00
218	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	10.80	Cum	INR		0.00

219	Supplying, filling, spreading & leveling sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.	10.80	Cum	INR		0.00
220	Gravel packing in Rainy well construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineerin- charge.	7.00	Cum	INR		0.00
221	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I). 150 mm dia	1.00	Each	INR		0.00
222	Applying Priming coat With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	50.00	sqm	INR		0.00
223	Carriage of material by mechanical transport including loading, unloading and stacking Earth beyond 5 Km and upto 10 Km	1755.89	cum per Km	INR		0.00
224	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete.	50.00	cum	INR		0.00
225	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly levelling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	159.00	cum	INR		0.00
226	Supplying and stacking of good earth at site including royalty and carriage upto 5 km lead complete (earth measured in stacks will be reduced by 20% for payment). Screened through sieve of I.S. designation 20mm	35.00	cum	INR		0.00
227	Rough dressing the trenched ground including breaking clods.	265.00	sqm	INR		0.00
228	Fine dressing the ground	265.00	sqm	INR		0.00
229	Spreading of manure or/and good earth in required thickness	35.00	cum	INR		0.00
230	Providing & laying Selection no. 1 grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with required tools wooden and than rolling the surface with light roller make the surface smoothen and light watering the same maintenance for 30 days or more till the grass establish properly,as per direction of officer in charge	212.00	sqm	INR		0.00
231	Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50m lift upto 1.5 m complete (cost of sludge, manure or extra earth to be paid for sepa-rately).	15.00	cum	INR		0.00
232	Digging holes in ordinary soil and refilling the same with the exca-vated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately): Holes 60 cm dia, and 60 cm deep.	10.00	each	INR		0.00

233	Providing and fixing M.S. flat iron tree guard 60cm dia. and 2m height above ground level formed of 4 nos. 25x6mm and 8 nos. 25x3mm vertical M.S. flats rivetted to 3 nos. 25x6mm M.S. flat iron rings in two halves, bolted together with 8mm dia. and 30mm long bolts including painting two coats with paint of approved brand and manufacture over a coat of priming, complete in all respects.	1.00	each	INR		0.00
234	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-20 mm dia	10.00	Metre	INR		0.00
235	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-25 mm dia	10.00	Metre	INR		0.00
236	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-32 mm dia	10.00	Metre	INR		0.00
237	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-40 mm dia	10.00	Metre	INR		0.00
238	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-50 mm dia	10.00	Metre	INR		0.00
239	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-65 mm dia	100.00	Metre	INR		0.00
240	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.External works-80 mm dia	10.00	Metre	INR		0.00
241	Providing fixing CI Sluice Valve (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately-100 mm diameter-Class II	1.00	Each	INR		0.00
242	Providing fixing CI Sluice Valve (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately-150 mm diameter-Class II	1.00	Each	INR		0.00
243	Providing fixing CI Sluice Valve (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately-200 mm diameter-Class II	1.00	Each	INR		0.00
244	Constructing masonry Chamber 30x30x60 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	1.00	Nos	INR		0.00
245	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	1.00	Nos.	INR		0.00

246	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	1.00	Nos.	INR		0.00
247	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :100 mm dia Ductile Iron Class K-9 pipes	100.00	Metre	INR		0.00
248	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :150 mm dia Ductile Iron Class K-9 pipes	200.00	Metre	INR		0.00
249	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :200 mm dia Ductile Iron Class K-9 pipes	10.00	Metre	INR		0.00
250	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :250 mm dia Ductile Iron Class K-9 pipes	5.00	Metre	INR		0.00
251	Providing and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 : 300 mm dia Ductile Iron Class K-9 pipes	5.00	Metre	INR		0.00
252	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523 : Up to 600 mm dia	2.40	Quintal	INR		0.00
253	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket : 100 mm dia pipes	13.00	Each	INR		0.00
254	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :150 mm dia pipes	25.00	Each	INR		0.00
255	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :200 mm dia pipes	1.00	Each	INR		0.00
256	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket : 250 mm dia pipes	1.00	Each	INR		0.00
257	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket : 300 mm dia pipes	1.00	Each	INR		0.00
258	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil	5.00	Metre	INR		0.00
259	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Pipes, cables etc, not exceeding 80 mm dia.	220.00	Metre	INR		0.00
260	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre). All kinds of soil	55.00	Metre	INR		0.00
261	Extra for excavating trenches for pipes, cables, etc, in all kinds of soil for depth exceeding 3 m in depth, but not exceeding 4.5 m. (Rate is over corresponding basic item for depth upto 1.5 metre.)	1.00	Metre	INR		0.00

262	Providing and laying cement concrete 1:5:10 (1 cement : 5 sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W./RCC pipes including bed concrete as per standard design: 150 mm dia	50.00	Metre	INR		0.00
263	Providing and laying cement concrete 1:5:10 (1 cement : 5 sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W./RCC pipes including bed concrete as per standard design: 250 mm dia	200.00	Metre	INR		0.00
264	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 : 150 mm dia	1.00	Metre	INR		0.00
265	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 : 200 mm dia	1.00	Metre	INR		0.00
266	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 100 mm diameter	5.00	Metre	INR		0.00
267	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete : 150 mm diameter	5.00	Metre	INR		0.00
268	Providing and fixing square-mouth S.W. gully trap class SP-1 complete withh C.I. grating brick masonry chamber withh water tight C.I. cover withh frame o f 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design: 100x100 mm size P type withh common burnt clay F.P.S. (non modular) bricks of class designation 7.5	5.00	Each	INR		0.00
269	Providing and laying non-pressure NP2 class (light duty) R.C.C pipes jointed withh stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete 150 mm dia. R.C.C. pipe	50.00	Metre	INR		0.00
270	Providing and laying non-pressure NP2 class (light duty) R.C.C pipes jointed withh stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete 250 mm dia. R.C.C. pipe	200.00	Metre	INR		0.00
271	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 sand) withh R.C.C. top slab withh 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick withh cement mortar 1:3 (1 cement : 3 sand) finished withh floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 sand : 4graded stone aggregate 20 mm nominal size) finished withh a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover withh frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :Withh common burnt clay F.P.S. (non-modular) bricks of class designation 7.5	3.00	Nos.	INR		0.00
272	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 sand) withh R.C.C. top slab withh 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick withh cement mortar 1:3 (1 cement : 3 sand) finished withh floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 sand : 4graded stone aggregate 20 mm nominal size) finished withh a floating coat of neat cement complete as per standard design :Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :With common burnt clay F.P.S. (non-modular) bricks of class designation 7.5	10.00	Nos.	INR		0.00

273	Extra for depth for manholes :Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	Metre	INR		0.00
274	Extra for depth for manholes :Size 120x90 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	Metre	INR		0.00
275	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 sand), in side cement plaster 12 mm thick withh cement mortar 1:3 (1 cement : 3 sand) finished withh a floating coat of neat cement, foundation concrete 1:3:6 mix (1 Cement : 3 sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 Cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) finished withh a floating coat of neat cement all complete as per stander design. 0.91 m deep withh S.F.R.C . cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 Kg. fixed in cement concrete 1:2:4 (1 cement :2 sand : 4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Excavation , foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Nos.	INR		0.00
276	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Metre	INR		0.00
277	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	10.00	Nos.	INR		0.00
278	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 sand) with precast R.C.C. vertical grating complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	5.00	Nos.	INR		0.00
279	Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame and vertical grating complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	Nos.	INR		0.00
280	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement: 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: Inside dimensions 455x610 mm and 45 cm deep for single pipe line :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	Each	INR		0.00

281	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement: 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Each	INR		0.00
282	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement: 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Each	INR		0.00
283	Extra for depth beyond 45 cm of brick masonry chamber :For 455x610 mm size With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Metre	INR		0.00
284	Extra for depth beyond 45 cm of brick masonry chamber :For 500x700 mm size With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Metre	INR		0.00
285	Extra for depth beyond 45 cm of brick masonry chamber :For 600x850 mm size With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Metre	INR		0.00
286	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	2.00	Each	INR		0.00
287	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	Each	INR		0.00
288	Providing and fixing Roller Blinds in Windows on approved make complete	574.74	sqm	INR		0.00
289	Providing and fixing Factory made Modular kitchen cabinets with all SS accesries as per drawing complete .	25.00	Sqm	INR		0.00
290	Providing and fixing chicken wire mesh at junction of RCC and Brickwork	1878.24	Sqm	INR		0.00
291	Providing Stone finish Texture finish coating mixed with polymer bonding agent min 2 mm thickness in single coat on external walls at all heights and levels complete as per manufacturer instructions Unistone / Heritage / Luxture or equivalent	2641.73	Sqm	INR		0.00
292	Providing and fixing 12mm thick toughned glass frameless door with ss handle 2 nos 450 mm , ss concealed floor hinges , locking arrangment complete	138.15	sqm	INR		0.00

293	Providing and fixing white vitreous china water closet (European type W.C. pan) constellation coupled closet with seat and lid, 10 litre white vitreous china . flushing cistern, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : WC pan ISI marked white solid plastic seat and lid	92.00	Each	INR		0.00
294	Providing and fixing white vitreous china counter top oval type counter top wash basin of size 560 mm x 450 mm with necessary cutting etc required in RCC /stone slab and also providing 1 no 15mm CP pillar cock (with sensor)	57.00	Each	INR		0.00
295	Providing and laying PVC (SWR) pipes single socketed, in any length with rubber ring joints,including all accessories bends, Tee sockets laid in trenches or in floor (Type B)- 110mm dia	170.00	metre	INR		0.00
296	Providing and laying PVC (SWR) pipes single socketed, in any length with rubber ring joints,including all accessories bends, Tee sockets laid in trenches or in floor (Type B)-75mm dia	260.00	metre	INR		0.00
297	Providing and laying PVC (SWR) pipes single socketed in any length with rubber ring joints including all accessories bends, Tee sockets ,cows,couplers , clips etc fixed to walls (Type B)- 110mm dia	150.00	metre	INR		0.00
298	Providing and laying PVC (SWR) pipes single socketed in any length with rubber ring joints including all accessories bends, Tee sockets ,cows,couplers , clips etc fixed to walls (Type B)-75 mm dia	150.00	metre	INR		0.00
299	Providing and fixing PVC (SWR) 'P' trap 110 mm	73.00	Each	INR		0.00
300	Providing and fixing CP towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings 600 mm long	56.00	Each	INR		0.00
301	Providing and fixing CP Brass soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	56.00	Nos.	INR		0.00
302	Supply & Fixing of CP Brass Chrome Finish Health Faucet with 1m long tube and wall hook of Approved make	56.00	Each	INR		0.00
303	Providing and fixing SS Grating 125 Circular type 125 mm nominal dia with 25 mm waste hole	73.00	Nos.	INR		0.00
304	Supplying and fixing of CP Sheet glass shelf assembly consisting of 8 mm thick sheet glass shelf 30x 30cms with chromium plated bracket guard	2.00	Nos.			
305	Providing and fixing Automatic Hand Dryer in Toilets with drying time less than 15 secs as per specs complete	22.00	Nos.	INR		0.00
306	Providing Decorative Gate lights with Led Bulb 20 W including 1.5 sqmm electrical wiring in PVC Conduit complete	4.00	each	INR		0.00
307	Supplying and plantation of Trees including excavation and backfilling complete	5.00	Each	INR		0.00
308	Supplying and plantation of Trees including excavation and backfilling complete plantation of bottle palm Trees 14-15 ft. ht.	10.00	Each	INR		0.00
309	Supplying and plantation of Trees including excavation and backfilling complete plantation of fox palm Trees 7-8 ft. ht.	7.00	Each	INR		0.00
310	Supplying and plantation of Shrubs Upto 500 mm height including excavation and backfilling complete	50.00	Each	INR		0.00
311	Supplying and plantation of Hedge.Upto 300 mm height including excavation and backfilling complete	50.00	Each	INR		0.00
312	Supplying and plantation of Plants.Upto 100 mm height including excavation and backfilling complete	100.00	Each	INR		0.00
313	Supply and Installation of RCC Garden Bench 900 mm length complete to the satisfaction of Engineer in Charge	2.00	Each	INR		0.00

314	<p>WATER SUPPLY PUMPS & EQUIPMENTS AND WATER SUPPLY RISERS</p> <p>Domestic Water Pump (Hydropneumatic System With Fixed Speed Pumps)</p> <p>Providing, fixing and testing of Own Assembled variables frequency drive type skid mounted hydropneumatic system with variable speed system comprising of :-</p> <p>Horizontal, Single Stage centrifugal pumping set with CI stage casing and Bronze impellers with stainless steel SS shaft as per IEC standards and GJL250 cast iron suction & discharge casing, connected to TEFC ventilated induction motor of 2 pole, 2900rpm, suitable for 400/440 Volts, 3 phase, 50 Hz A.C. supply.</p> <p>Pressure vessel of non corrosive FRP composite construction lined with NSF and/or FDA listed material, like high density polyethylene with fully replaceable polyurethane. Air cell burst pressure of minimum of 5 times the vessel operating pressure and cycle tested for 2,50,000 cycles.</p> <p>No. and capacity of Pressure Vessel – 01 Nos. x 300 Ltrs</p> <p>Control Panel with programmable logic controller (PLC) for cyclic operation of pumps. Pump working sequence should change after every operation. PLC should also operate the Pumps on Differential Pressure. Contractor overload relays and MCBs should confirm to IEC 898 – 1995/ specifications. Blinking indications for pumps start, trip, low level trip, health supply should be provided in the panel along with the ammeter & voltmeter. Control panel should also consist of cooling fan. Pressure switches with Differential Pressure setting to set the required Cut in Cut Off Pressures for Automation of Pumps. GI Suction and delivery header with Butterfly valves, NRVs to be used. Complete set system to be mounted on a common base frame and shall follow following duty. Domestic Water Pumps 5 HP CAPACITY</p>	1.00	SET	INR		0.00
315	<p>Supply installation, testing & commissioning of gas chullah with following fittings & fixtures and making good etc. complete as per the direction of engineer in charge</p> <p>Having 3 unit each of Globe valve 1/4" (8.45mm), line pipe 1/4" black steel, ERW screwed, line pipe 1/2", black steel, ERW screwed, Casing chullah 6" for pipe., Nipple straight sch.80, 1/4"x4" long, bushing hex, MI, NPT, size 1/2"x1/4". Tee, Equal, straight, size 1/2". Plug, squre/hex. heads, 300 PSI, size 1/2". Ring burner, complete with fittings.</p>	2.00	Each	INR		0.00
316	<p>Supplying and fixing Signage of approved size with base of 5 mm thick Acrylic sheet and digital printing of signage as per requirement and design fixed on wall with the screws & double tape or hanged from the ceiling with the help of hooks & SS chains complete work.</p>	30.00	Sqm	INR		0.00
317	<p>Supplying and fixing Signage of approved size with base of 4 mm thick Stainless steel sheet and digital printing of signage as per requirement and design fixed on wall with the screws & double tape or hanged from the ceiling with the help of hooks & SS chains complete work.</p>	30.00	Each	INR		0.00
318	<p>Supply, installation, testing and commissioning of Potable water purification system with inbuilt water cooler with UV technology 120 lit capacity of Purella/volta/bluestar or equivalent make complete with all accessories.</p>	11.00	Each	INR		0.00
319	<p>Dismantling and Demolition of Existing substation Building at site including all dismantling works of civil, internal plumbing, electrical, existing fencing, Garbage Bin, Septic tanks, roads, drains, street lights, UG cables etc including disposal of unserviceable materials with all leads and lifts complete</p>	1.00	AU	INR		0.00
Group B: FURNITURE WORKS		X			Y	Z = X*Y

1	<p>Receptoin Table</p> <p>Providing and Supplying Reception Table. Dimension of Table is - 3000mmL x 600mm D x 1050mm Ht + Side on both Sides 1500mmL x 600mm D x 1050mm Ht . The Worktop at 750mm Height is 600 mm Deep. Reception Table has 300mm Depth Table Top Fixed on Top of frame. The Thickness of this Counter Top is 25mm . The Frame Height is 1200mm and is 50 mm thick and made of Aluminium Extrusions of 1.2 mm to 1.5mm thickness. The System is complete hollow system with space for wire reticulation . All the frames will be duly powder coated . All the frames are fastened together by means of M6 NUTS & BOLTS . All the frames are fitted with M10 leveling bolts.board.The Raceway :-The raceway cover are sliding type and are integrally fitting inside frame and are made out of 0.8mm - 1mm thick CRCA steel & powder coated. The electrical raceway can be provided below worktop or above worktop.The partition has two integrated raceway provided one at skirting level and another at the work surface level thus ensuring separation of power and networking cables. The free space available within raceway accommodates power, data and communication cables. The cable can be taken into the Frame from the floor from the bottom. Tiles: Fabric Tile: Constructed out of 5mm thick Medium Density Fiber Board (MDF) and covered with Fabric of choice. Laminate Tile: Made out of 5mm - 8mm thick Pre-laminated Medium Density Fiber Board (MDF)Bottom Row of Steel Tile: Constructed out of 0.8mm CRCA sheet and finished in epoxy powder coating. Can be given with plain / perforations / embossed finishes. Table tops and Gable ends are of 25mm thk Pre-laminated particleboards conforming to IS : 12823 Interior Grade. All Worktops to have Metal Insets for fixing screws. Specially designed powder coated M.S. brackets having 2mm thickness fixed to the partition frame support the tabletops. Gable ends are of 25mm thk. both side laminate (BSL) with 2mm PVC edge banding on front side. Gable Ends are fixed with 3mm thick MS brackets to Frame and with 3mm thick Brackets to Worktops. Sealed edge in table top and gable ends are with 2mm thick PVC edge banding on Working side and 0.8mm thick edge banding on non working side. Reception Table has 3Drawer Pedestal unit of size 400mm L x 450mm D x 680mm made up of 18mm thk. Prelam particle board conforming to IS : 12823 Interior Grade with 3 Drawer (2 Drawer + 1 Filing) with roller slide mechanism for 2 Drawers and Ball bearing slide for 1 Filing Unit</p>	1.00	EACH	INR		0.00
2	<p>Centre Table</p> <p>Supply and placing centre table in position with sizes 1200mm(W)x600mm(D)x400mm(H) with top made of 10mm thick glass top supported on SS Studs on understructure of Prelaminated Particle Board. The Table shall have another shelf at lower level The work shall be carried out as per the instructions received from engineer-incharge.</p>	26.00	EACH	INR		0.00
3	<p>Corner Table</p> <p>Supply and placing centre table in position with sizes 1200mm(W)x600mm(D)x400mm(H) with top made of 10mm thick glass top supported on SS Studs on understructure of Prelaminated Particle Board. The Table shall have another shelf at lower level The work shall be carried out as per the instructions received from engineer-incharge.</p>	22.00	EACH	INR		0.00

4	<p>Workstations</p> <p>Providing and placing Workstation with side storage unit . Main table is 1500mm L x 600mmD x 1200mm Ht and side storage is 1050mm L x 450mm D is a combination of 3 drawer pedestal unit and a hinged door unit . Partition is in front of the main table and also against the side storage as shown in image attached . Frame is 50- 60 mm thick and made of vertical Aluminium Extrusions and Horizontal Steel Members of 1.2 mm to 1.5mm thickness. System is complete hollow system with space for wire reticulation . All the frames will be duly powder coated . All the frames are fastened together by means of M6 NUTS & BOLTS . All the frames are fitted with M10 leveling bolts.board.Raceway :-The raceway cover are sliding type and are integrally fitting inside frame and are made out of 0.8mm - 1mm thick CRCA steel & powder coated. The electrical raceway can be provided below worktop or above worktop.The tables Should have metal inserts on underside for modularity. The screw used should be blunt headed and not sharp headed for metal to metal coupling . The partition has two integrated raceway provided one at skirting level and another at the work surface level thus ensuring separation of power and networking cables. The free space available within raceway accommodates power, data and communication cables. The cable can be taken into the Frame from the floor from the bottom. Tiles: Fabric Tile: Constructed out of 5mm thick Medium Density Fiber Board (MDF) and covered with Fabric of choice. Laminate Tile: Made out of 5mm - 8mm thick Pre-laminated Medium Density Fiber Board (MDF) . Bottom Row of Steel Tile: Constructed out of 0.8mm CRCA sheet and finished in epoxy powder coating. Can be given with plain / perforations / embossed finishes.Magnetic tile: Constructed out of 0.8mm Galvanized sheet and covered with fabric of choice. Whiteboard marker tiles: Made out of 4mm MDF with 1mm glossy highly wear resistant face laminate . Total thickness is 5mm. Table tops and Gable ends are of 25mm thk Pre-laminated particleboards conforming to IS : 12823 Interior Grade. The Worktops should have metal inserts on underside for modularity. The screw used should be blunt headed and not sharp headed for metal to metal coupling . Specially designed powder coated M.S. brackets having 2mm thickness fixed to the partition frame support the tabletops. Gable ends are of 25mm thk. both side laminate (BSL) with 2mm PVC edge banding on front side. Gable Ends are fixed with 3mm thick MS brackets to Frame and with 3mm thick Brackets to Worktops. Sealed edge in table top and gable ends are with 2mm thick PVC edge banding on Working side and 0.8mm thick edge banding on non working side . 5 year warranty .</p>	132.00	EACH	INR		0.00
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5	<p>Sr Officer Room Table</p> <p>Main table :- 2100 x 900(W) x 740(H) with side unit 1200 X 500 X 740 with 3 dr pedestal</p> <p>Table Top: - The table top is Post-laminated for better abrasion and scratch resistance. The Table top is made of Particle Board with 1mm top laminate and 1mm bottom laminate. The complete Table top is 36mm thick. All exposed edges have 2mm PVC edge banding. The modesty is Post-laminated for better abrasion and scratch resistance. The Modesty is made of 18mm Particle Board with 1mm top laminate and 1mm bottom laminate. All exposed edges have 2mm PVC edge banding. The colour of the modesty is matching to the table top colour. The understructure is 200mm wide on one side is 25mm. It is made up of prelam particle board and is black in colour. The understructure has wire management properties and can carry concealed wires within it. All exposed edges have 2mm PVC edge banding.</p> <p>The extesnion table in size of 1150 (L) x 750 (W) x 740 is of an arc shape and Post-laminated for better abrasion and scratch resistance. The Table top is made of Particle Board with 1mm top laminate and 1mm bottom laminate. All exposed edges have 2mm PVC edge banding. The complete Table top is 36mm thick and available in black colour.</p> <p>Back Storage :- 900 (W) x 450 (D) x 740 (H)- 1 nos</p> <p>The storage caracass is made of 18mm thick prelam particle board of black colour. The shutters and storage top are Post-laminated for better abrasion and scratch resistance. The storage top is made of 25mm Particle Board with 1mm top laminate and 1mm bottom laminate. The shutters are made of 18mm Particle Board with 1mm top laminate and 1mm bottom laminate.</p>	9.00	EACH	INR		0.00
6	<p>Cabin Table</p> <p>Providing and placing, Main Table 1800mm L x 900mm W x750mm D, made up of 25mm thk. Prelaminated particle Board with 2mm PVC Edge Banding supported on Gable ends made out of 25mm thk prelam particle boards with 2mm thk PVC edge banding. The Worktops should have metal inserts on underside for modularity. The screw used should be blunt headed and not sharp headed for metal to metal coupling . Modesty panels is in 18mm thk Prelaminated finish. Separate provision for mounting switches on the wall adjoining the tables shall be made by customer as the tables do not come with switch mounting facility. Wire routing / wire management groumets shall be provided on main Table. Side Table of size 1200mm L x 500mm D x 750mm Ht made up of 25mm thick Prelaminated particle Board with 2mm PVC Edge Banding supported on Gable ends made out of 25mm thk prelam particle boards with 2mm thk PVC edge banding. Modesty panels are in 18mm thk Prelaminated Particle finish. Side Table has Pedestal unit of size 400mm L x 450mm D x 680mm made up of 18mm thk. Prelam particle board conforming to IS : 12823 Interior Grade with 3 Drawer (2 Drawer + 1 Filing) with roller slide mechanism for 2 Drawers and Ball bearing slide for 1 Filing Unit. Back Storage Unit is 750mm Height x 450 mm D x 1650 mm L . It comprises of Hinged Door Units and Open Storage with Shelves . Storage are made of 18mm thick particle board with 2mm PVC Edge banding on exposed surface and).8mm thick edhe banding on non working edges. Back Panel is made of 18mm Prelaminated Particle Board. Storages are lockable with SS Finish Handles in D Shape.</p>	44.00	EACH	INR		0.00

7	<p>Cubicle Table</p> <p>Providing and placing, Main Table 1500 x 600mm, completely made up of Prelaminated Particle board conforming to IS : 12823 Interior Grade with PVC edge banding. Top are with 25mm thk boards with 2mm thick PVC Lipping on User and Visitor Side . The Table tops should have metal inserts on underside for modularity. The screw used should be blunt headed and not sharp headed for metal to metal coupling .Table top is supported on 18mm thick Gable ends and 18mm thk Modesty panels. exposed edges are in 2mm thk PVC edge banding & sealed edges are in 0.8mm thk PVC edge banding. Separate provision for mounting switches on the wall adjoining the tables shall be made by customer as the tables do not come with switch mounting facility.Side storage of size 750 mm L x 450 mm D is made up of 18mm thk. prelam particle board having SS finish D handle and Lock. Storage is a combination of 3 drawer pedestal and a hinged door unit . Storage body is made of 18mm thick pre laminated partial Board conforming to IS : 12823. The back of the unit is made from 18 mm prelaminated board. All the exposed edges are with 2mm PVC egde Imported banding & sealed edges are with 0.8mm thick PVC edge banding. The top, side and hinged shutters are sealed with 2mm thick PVC edge banding. The units are assembled by knock down fittings such as Minifix & Dowels. All the hardware and Hinges are from Hettich/Ebco .</p>	67.00	EACH	INR		0.00
8	<p>Cubicle Partition</p> <p>Providing and placing 1200mm Ht free standing partitions. Frame is 50- 60 mm thick and made of Aluminium Extrusions of 1.2 mm to 1.5mm thickness. The System is complete hollow system with space for wire reticulation . All the frames will be duly powder coated . All the frames are fastened together by means of M6 NUTS & BOLTS . All the frames are fitted with M10 leveling bolts.board.Raceway :-The raceway cover are sliding type and are integrally fitting inside frame and are made out of 0.8mm - 1mm thick CRCA steel & powder coated. The electrical raceway can be provided below worktop or above worktop.The partition has two integrated raceway provided one at skirting level and another at the work surface level thus ensuring separation of power and networking cables. The free space available within raceway accommodates power, data and communication cables. The cable can be taken into the Frame from the floor from the bottom. Tiles: Fabric Tile: Constructed out of 5mm thick Medium Density Fiber Board (MDF) and covered with Fabric of choice. Laminate Tile: Made out of 5mm - 8mm thick Pre-laminated Medium Density Fiber Board (MDF) . Bottom Row of Steel Tile: Constructed out of 0.8mm CRCA sheet and finished in epoxy powder coating. Can be given with plain / perforations / embossed finishes.Magnetic tile: Constructed out of 0.8mm Galvanized sheet and covered with fabric of choice. Whiteboard marker tiles: Made out of 4mm MDF with 1mm glossy highly wear resistant face laminate . Total thickness is 5mm.</p>	700.00	Metre	INR		0.00
9	<p>Meeting Room Table- Round in Type</p> <p>Circular Table:</p> <p>Circular discussion table model Convene in 1050 Dia</p> <p>Prelaminated particle board Under structure :- SS Round leg of 100mm dia 2 mm wall thickness with base plate. The base is at the bottom and top for better stability. The top base to have required holes for fixing table top to it.</p>	4.00	EACH	INR		0.00

10	<p>32 Seater Conference Room table as per Layout</p> <p>Table Tops – Available in standard modules, made of 25mm thick MDF with waterfall top edges finished in PVC Membrane using unique wrap around technology for better aesthetics & long lasting use. Understructure – Legs made of 25mm thick standard Black matt colour post formed panels interconnected with 18mm thick standard Black matt colour pre-laminated modesty panels, with height adjustable levelers to take care of uneven floors. Wire Management – Concealed wire management to take care of basic wiring requirements both horizontally & vertically. For closed configurations, liftable top cover, made of 12mm MDF finished in PVC Membrane, is provided to access the horizontal wire carrier. For open configurations, wire channel is mounted on the inner side of modesty panel for horizontal wire carrying. Vertical wire management is through flexible vertical wire manager. Standard table top height – 740mm. Designed for Flexibility through modular Construction, PVC Membrane Finish Tops for seamless surface, Post formed Legs for safe use, Provision for easy wire management, Upgradeable / reconfigurable for future needs.</p>	3.00	EACH	INR		0.00
11	<p>Storages 900mmL x 450mm D x 750mm Ht</p> <p>Providing and placing storage . Storage body is made of 18mm thick pre laminated partical Board conforming to IS : 12823. The back of the unit is made from 18mm prelaminated board. All the exposed edges are with 2mm PVC egde Imported banding & sealed edges are with 0.8mm thick PVC Imported edge banding. The top, side and hinged shutters are sealed with 2mm thick PVC edge banding. The units are assembled by knock down fittings such as Minifix & Dowels. All the hardware and Hinges are from Hettich/Ebco. Prelam storage unit of 750mm ht and 450mm depth .</p>	9.00	EACH	INR		0.00
12	<p>Storages 900mmL x 450mm D x 1200mm Ht</p> <p>Providing and placing Prelaminated Particle Board storage with openable doors of 1200mm(ht), made up of 18mm thick prelaminated particle board with PVC edge banding and locking arrangement.Storage body is made of 18mm thick pre laminated partical Board conforming to IS : 12823 Interior Grade, The back of the unit is made from 18mm prelaminated board. All the exposed edges are with 2mm PVC egde Imported banding & sealed edges are with 0.8mm thick PVC Imported edge banding. The top, side and hinged shutters are sealed with 2mm thick PVC edge banding. The units are assembled by knock down fittings such as Minifix & Dowels. All the hardware and Hinges are from Hettich/Ebco. Storage has Brushed SS finish handles and lock . Prelam storage unit of 1200mm ht and 450mm depth .</p>	492.00	EACH	INR		0.00
13	<p>Canteen Table - 3300mmL x 750mm D</p> <p>Providing & Fixing of Cafe table of Size 3300mm x 750mm. The Worktop shall be made of 25mm Prelamparticle Board of Grade II , Type-II as per IS:12823 and backing laminate of 0.6mm All the exposed edges are finished with 2mm thick PVC lipping machine pressed. Legs are made of powdered coated steel 50mmx 50mm Section. Cross Member are in CRCA steel and the Beam is made of MSof 1.5mm thickness in powder coated finish of 50 microns thickness . The above furniture should be as per specification and sample approved by client.</p>	6.00	EACH	INR		0.00

14	<p>Workstation / Reception Chairs</p> <p>Zapper mid back chair :-The cushioned seat assembly shall consists of moulded polyurethane foam upholstered with fabric. The foam is assembled over a 12mm thick hot pressed plywood . The back shall made up of two piece injection moulded frame. The inner frame shall be upholstered with mesh fabric and mounted on the main assembly. Size of back shall be (W)-46 cm, (H)-55 cm & size of seat shall be (W)-48 cm x (D)-44.0cm. Armrest has option of height adjustment . The arm top is made of soft moulded PU .The mechanism of chair shall have following features:360 degree revolving type, Synchro mechanism, Tilt tension adjustment, multi position tilt limiter with Back-safety return feature. The chair shall be provided with pneumatic height adjustment which shall have stroke of 95 +/- 5 mm. The pedestal shall be made of nylon. it shall be fitted with 5 nos twin wheel castor. The size of the pedestal shall be 65.0 +/- 1 cm pitch-centre-dia (70.0 +/- 1.0 cm with castors). The twin wheel castors shall be injection moulded in PP . Overall dimensions of Chair shall be, Width of Chair - 70.0cm, Depth of Chair - 70.0 cm as measured from pedestal below. Height from ground - min 95 to max 104 cm. Seat height - min 45.0cm to max 54.0cm. Dimensions tolerance / variations shall be within +/- 1 cm. Chair tested as per ANSI/BIFMA x5.1 standards</p>	134.00	EACH	INR		0.00
15	<p>Sr officer cabin Main Chair</p> <p>Revolving High Back Chair:-</p> <p>The Fabric seat and back, 1 D Arm rest. PU Arm pads, 650 mm dia Nylon base, 50 mm Nylon Castors, Class 4 gas lift, Synchro SINGLE POINT locking position mechanism . All components tested as per BIFMA compliance. High Back (HB) 790mm (H) X 535mm (W). The backrest tested for 1,20,000 cycles to be completed with a load of 44.5Kg as per ANSI / BIFMA X5.1.</p> <p>SEAT : The seat is made up of 12mm thick (7 layers) hot pressed plywood and moulded seat foam upholstered with fabric. Seat Size 510mm (W) X 535mm (D). The seat tested for 1,00,000 cycles to be completed with a load of 57kg impact force on the seat as per ANSI / BIFMA X5.1.Seat foam made out of moulded Polyurethane foam with Density: 50-60 Kg/m3, Hardness: 15-20Kgf and Tensile strength: 0.9-1.2 Kg/cm2</p> <p>ARM REST : The armrests made up of black integral skin polyurethane with 40-55 Shore Hardness and reinforced with 2mm thick M.S. insert. Arm pad size 258mm (L) x 112mm (W). The armrests are fitted to the seat with seat/armrest connecting strip assembly made of 6mm thick. HR steel. 2D arms with height adjustable up to 80mm & front and back with adjustable up to 60mm. Arm rest tested for 60,000 Cycles to be completed with load of 40Kg as per ANSI / BIFMA X5.1.</p> <p>MECHANISM : SINGLE POINT SYNCHRO MECHANISM : Conventional mechanism with one lever control for lock and seat height adjustment. Mechanism made out of MS Plate thickness is 3mm and seat is tilting angle is 3°~10°. and back tilting angle is 87°~106°. Also it has the back tension adjustment knob. Mechanism tested for 3, 00,000 Cycles as per ANSI / BIFMA X5.1.</p> <p>GAS LIFT :Gas lift pipe diameter 50mm and has an Height adjustment stoke of 112mm. Gas lift tested for 1, 00,000 Cycles as per ANSI / BIFMA X5.1. Meets DIN 4550 Class 3 and all applicable ANSI/BIFMA, EN performance standard</p> <p>BASE : NYLON BASE : The base made up of injection moulded in black glass filled nylon and fitted with 5Nos twin wheel castors. The base is 658mm pitch circle diameter. The base tested for static load of 1134Kg as per ANSI / BIFMA X 5.1.</p> <p>CASTERS : NYLON CASTORS : The twin wheel castors are injection moulded in nylon and diameter of Castor 60 mm. The castors are tested for 1,00,000 Cycles as per ANSI / BIFMA X 5.1.</p> <p>Seat Fabric with 100% Polyester content and Abrasion over 30000 and Flammability Adheres to California</p>	9.00	EACH	INR		0.00

16	<p>Sr officer cabin Visitor Chair</p> <p>Revolving Mid Back Chair:-</p> <p>SEAT : The seat is made up of 12mm thick (7 layers) hot pressed plywood and moulded seat foam upholstered with fabric. Seat Size 510mm (W) X 535mm (D). The seat tested for 1,00,000 cycles to be completed with a load of 57kg impact force on the seat as per ANSI / BIFMA X5.1. Seat foam made out of moulded Polyurethane foam with Density: 50-60 Kg/m³, Hardness: 15-20Kgf and Tensile strength: 0.9-1.2 Kg/cm²</p> <p>ARM REST : The armrests made up of black integral skin polyurethane with 40-55 Shore Hardness and reinforced with 2mm thick M.S. insert. Arm pad size 258mm (L) x 112mm (W). The armrests are fitted to the seat with seat/armrest connecting strip assembly made of 6mm thick. HR steel. 1D arms with height adjustable up to 80mm & front and back with adjustable up to 60mm. Arm rest tested for 60,000 Cycles to be completed with load of 40Kg as per ANSI / BIFMA X5.1.</p> <p>MECHANISM : SINGLE POINT SYNCHRO MECHANISM : Conventional mechanism with one lever control for lock and seat height adjustment. Mechanism made out of MS Plate thickness is 3mm and seat is tilting angle is 3°~10°. and back tilting angle is 87°~106°. Also it has the back tension adjustment knob. Mechanism tested for 3, 00,000 Cycles as per ANSI / BIFMA X5.1.</p> <p>GAS LIFT : Gas lift pipe diameter 50mm and has an Height adjustment stroke of 112mm. Gas lift tested for 1, 00,000 Cycles as per ANSI / BIFMA X5.1. Meets DIN 4550 Class 3 and all applicable ANSI/BIFMA, EN performance standard</p> <p>Base:- Nylon base with castors : The base made up of injection moulded in black glass filled nylon and fitted with 5Nos twin wheel castors. The base is 658mm pitch circle diameter. The base tested for static load of 1134Kg as per ANSI / BIFMA X 5.1.</p>	27.00	EACH	INR		0.00
17	<p>Cabin Main Chair</p> <p>Adapt High back chair :-The seat shall made up of plywood and moulded polyurethane foam upholstered with fabric. Backrest assembly is of injection moulded plastic with black mesh fabric and height adjustable lumbar support pad. The moulded polyurethane foam for seat is with density=50-55 kg/m³. The dimensions of seat shall be- 48 cm(W) x 45 cm(D) and of back shall be 46.5 cm(W) x 51.5 cm(H). Armrest has 2 way button operated height adjustment and depth adjustment. The arm top is made of soft moulded PU with MS insert. The mechanism of chair shall have following features: 360 degree revolving type, Synchronous Mechanism. The chair shall be provided with Class 4 pneumatic height adjustment which shall have stroke of 112 mm. The pedestal shall be injection moulded in black GF nylon and fitted with 5 nos twin wheel castor. The size of the pedestal shall be 65.0 +/- 1 cm pitch-centre-dia (70.0 +/- 1.0 cm with castors). The twin wheel castors shall be injection moulded in black polypropylene. The cushioned head support is adjustable in height and angle for optimum user comfort. Overall dimensions of Chair shall be, Width of Chair - 70.0cm, Depth of Chair - 70.0 cm as measured from pedestal below. Height from ground - min 92.5 to max 103.0 cm. Seat height - min 41 cm to max 51.5 cm. Dimensions tolerance / variations shall be within +/- 1 cm. Chair tested as per ANSI/BIFMA x5.1 standards</p>	44.00	EACH	INR		0.00

18	<p>Cubicle Main Chair/Conference Room</p> <p>High Back Chair model Thats with Headrest ,It in Fabric with fixed base nylonbase, castors, Nylon mechanism -Synhcro 1 all dimension in mm with open tolerance of +/-10mm</p> <p>Back rest :-The outer frame of the backrest made up of injection moulded in black polypropylene and inner frame made up of injection moulded in black polypropylene. Inner frame upholstered with mesh fabric then assembled with outer frame. The back has auto contoured lumber support for achieving comfortable seating posture. Lumber support made up of injection moulded in black P.P and upholstered with U foam. Lumber support size 160mm (W) x 90mm (H) at fixed position Backrest size 650mm (H) x 530 (W).</p> <p>Seat :- The seat is made up of 12mm thick (7layers) hot pressed plywood and moulded seat foam upholstered with fabric. The bottom cover made up of injection moulded in black PP to cover the plywood. Seat size 495mm (W) x 510mm (D). Minimum and maximum seat height is 450mm and 550mm respectively.</p> <p>Back & Seat Foam :- Foam made out of moulded polyurethane foam with the following properties:</p> <ul style="list-style-type: none"> ☐ Density: 45 – 55 Kg/m3 ☐ Hardness: 15 – 20 Kgf ☐ Compression set: 50% 10 Max ☐ Tensile strength: 1.03 ☐ Tear strength (Min) : 2.0 N/cm ☐ Resilience : 50% - 60% ☐ Comfort / Indentation Hardness : 15.4 <p>Armrest :- ADJUSTABLE ARM: The armrests made up of black integral skin polyurethane with 45-55 Shore Hardness and reinforced with 4mm thick nylon insert.</p>	67.00	EACH	INR		0.00
19	<p>Cabin / Cubicle Visitor Chair/Conference Room</p> <p>Visitor chair model Thats, It :- The cushioned seat assembly shall consists of moulded polyurethane foam upholstered with fabric. The foam is assembled over a 12mm thick hot pressed plywood . The back shall made up of two piece injection moulded frame. The inner frame shall be upholstered with mesh fabric and mounted on the main assembly. Lumber support made up of injection moulded in black P.P and upholstered with PU foam. Lumber support size 160mm (W) x 90mm (H) at fixed position.Size of back shall be (W)-55cm, (H)-58.0cm & size of seat shall be (W)-50 cm x (D)-44.0cm. Armrest has option of height adjustment . The arm top is made of soft moulded PU .The visitor base is cantilever type. Overall dimensions of Chair shall be, Width of Chair - 70.0cm, Depth of Chair - 70.0 cm as measured from pedestal below. Height from ground - min 102.5 cm. Seat height - min 44.5 cm. Dimensions tolerance / variations shall be within +/- 1 cm. Chair tested as per ANSI/BIFMA x5.1 standards</p>	411.00	EACH	INR		0.00

20	<p>U shape Conference Room Chair/Meeting Room chair /Video conference room/Library</p> <p>Thats,It in Fabric with fixed nylonbase, castors, Nylon mechanism -Synhcro 1 all dimension in mm with open tolerance of +/-10mm</p> <p>Back rest :-The outer frame of the backrest made up of injection moulded in black polypropylene and inner frame made up of injection moulded in black polypropylene. Inner frame upholstered with mesh fabric then assembled with outer frame. The back has auto contoured lumber support for achieving comfortable seating posture. Lumber support made up of injection moulded in black P.P and upholstered with U foam. Lumber support size 160mm (W) x 90mm (H) at fixed position Backrest size 650mm (H) x 530 (W).</p> <p>Seat :- The seat is made up of 12mm thick (7layers) hot pressed plywood and moulded seat foam upholstered with fabric. The bottom cover made up of injection moulded in black PP to cover the plywood. Seat size 495mm (W) x 510mm (D). Minimum and maximum seat height is 450mm and 550mm respectively.</p> <p>Back & Seat Foam :- Foam made out of moulded polyurethane foam with the following properties:</p> <p>☐ Density: 45 – 55 Kg/m3</p> <p>☐ Hardness: 15 – 20 Kgf</p> <p>☐ Compression set: 50% 10 Max</p> <p>☐ Tensile strength: 1.03</p> <p>☐ Tear strength (Min) : 2.0 N/cm</p> <p>☐ Resilience : 50% - 60%</p> <p>☐ Comfort / Indentation Hardness : 15.4</p> <p>Armrest :- ADJUSTABLE ARM: The armrests made up of black integral skin polyurethane with 45-55 Shore Hardness and reinforced with 4mm thick nylon insert.</p>	211.00	EACH	INR		0.00
21	<p>Canteen Chair</p> <p>Canteen chair model Tango :- The Seat is in Injection molded polypropylene. Seat is attached to the frame by the back attachment and with six steel nuts. And Back is Injection molded polypropylene. Attached to the frame with two metal clips. Chair frame Construction is Welded construction made primarily of 7/16" diameter steel wire (solid) bent to shape on a CNC wire bender. A 7-gauge steel seat strap, ribbed for added strength, supports the front of the seat and two 11-gauge plates support the sides. A 7/16" contoured steel rod joins the front legs for strength. Frame Finish in bright chrome plated finish.</p>	60.00	EACH	INR		0.00
22	<p>Sofa - 3 seater -2065 X 850 X 760(WDH)mm</p> <p>Providing & Fixing of sofa model Alysia :- Frame : Plywood and klin chemical treated tropical meranti wood.</p> <p>Seating cushions : 3 inches elastic webbing (350 gsm) with daigonal weave and 7 inches layered foam, (32D 23D 32D HD) WITH Ployster playfill oiuter layer (180 gsm). Upholetry : Leatherette and Malamine finish rubber wood legs.</p>	34.00	EACH	INR		0.00
23	<p>Sofa - 2 seater - 1525 X 850 X 760(WDH)mm</p> <p>Providing & Fixing of sofa model Alysia :- Frame : Plywood and klin chemical treated tropical meranti wood.</p> <p>Seating cushions : 3 inches elastic webbing (350 gsm) with daigonal weave and 7 inches layered foam, (32D 23D 32D HD) WITH Ployster playfill oiuter layer (180 gsm). Upholetry : Leatherette and Malamine finish rubber wood legs.</p>	24.00	EACH	INR		0.00
Group C: ELECTRICAL WORKS		X			Y	Z = X*Y

1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C	3000.00	Point	INR		0.00
2	Wiring for circuit/ submain wiring alongwith earth wire with the 2 X 2.5 sq. mm + 1 X 2.5 sq. mm of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.	25000.00	Metre	INR		0.00
3	Wiring for circuit/ submain wiring alongwith earth wire with 2 X 4 sq. mm + 1 X 4 sq. mm of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.	5000.00	Metre	INR		0.00
4	Wiring for circuit/ submain wiring alongwith earth wire with 2 X 6 sq. mm + 1 X 6 sq. mm of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.	1500.00	Metre	INR		0.00
5	Wiring for circuit/ submain wiring alongwith earth wire with the 4 X 10 sq. mm + 2 X 6 sq. mm of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.4 X 10 sq. mm + 2 X 6 sq. mm earth wire	3000.00	Metre	INR		0.00
6	Wiring for circuit/ submain wiring alongwith earth wire with the 4 X 16 sq. mm + 2 X 6 sq. mm of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.	3000.00	Metre	INR		0.00
7	2 Pair 0.5 FRLS telephone cable Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required	3500.00	Metre	INR		0.00
8	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	500.00	Metre	INR		0.00
9	Telephone socket outlet Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	149.00	Each	INR		0.00
10	TV antenna socket outlet Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	8.00	Each	INR		0.00
11	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.	140.00	Each	INR		0.00
12	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	100.00	Each	INR		0.00
13	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required. 1 or 2 Module (75mmX75mm)	157.00	Each	INR		0.00

14	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	1290.00	Each	INR		0.00
15	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	317.00	Each	INR		0.00
16	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required. Group C	250.00	Point	INR		0.00
17	6 way , Double door Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)	6.00	Each	INR		0.00
18	Supplying and fixing 4 way (4 + 12), Double door UPS DB, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)	12.00	Each	INR		0.00
19	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 6 way (4 + 18), Double door Lighting DB	24.00	Each	INR		0.00
20	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 8 way (4 + 24), Double door, Power DB	24.00	Each	INR		0.00
21	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	270.00	Each	INR		0.00
22	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	6.00	Each	INR		0.00
23	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	30.00	Each	INR		0.00
24	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	18.00	Each	INR		0.00
25	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 30 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	6.00	Each	INR		0.00
26	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 30 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	6.00	Each	INR		0.00

27	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	50.00	Each	INR		0.00
28	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	20.00	Each	INR		0.00
29	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole	1188.00	Each	INR		0.00
30	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	192.00	Each	INR		0.00
31	Supplying and fixing 40 Amp rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 A	30.00	Each	INR		0.00
32	Supplying and fixing 63 Amp rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 A	30.00	Each	INR		0.00
33	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	32.00	Set	INR		0.00
34	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	200.00	Metre	INR		0.00
35	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	1500.00	Metre	INR		0.00
36	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run) Lightning protection	500.00	Metre	INR		0.00
37	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run) Lightning protection	200.00	Metre	INR		0.00
38	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	6.00	Nos.	INR		0.00
39	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	100.00	Nos.	INR		0.00
40	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	10.00	Metre	INR		0.00
41	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 150 mm width X 50 mm depth X 1.6 mm thickness	200.00	Metre	INR		0.00
42	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 300 mm width X 50 mm depth X 1.6 mm thickness	150.00	Metre	INR		0.00
43	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 450 mm width X 50 mm depth X 1.6 mm thickness	100.00	Metre	INR		0.00

44	Supplying, installation, testing & commissioning of 630 A 50kA SC for 1 sec capacity End Feed Unit for the existing Air Insulated Compact Type bus trunking/sandwich type rising mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply made with 1.6mm thick steel sheet enclosure (IP54) duly powder coated with MCCB complete with necessary joints including clamping brackets, angle iron bracket, steel fasteners, connecting to earthing system etc. as required	2.00	EACH	INR		0.00
45	Supplying, installation, testing & commissioning of 125 A 15kA SC for 1 sec capacity Plug In/ tap off box on the existing Air Insulated Compact Type bus trunking/ sandwich type rising mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply made with 1.6mm thick sheet steel enclosure (IP54) duly powder coated with MCCB/ACB complete etc. as required	8.00	Each	INR		0.00
46	Supplying, installing by suspension on ceiling, testing and commissioning of 630 A 50kA SC for 1 sec capacity Sandwich Type Rising Mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with metal clad enclosure having IP-54 rating after fixing the tap off boxes and all accessories, made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars having current density of 130 A/ sq cm at nominal current rating, necessary joints, elbow joints & expansion joints and bends, fire barrier at each floor, provision of tapping at every metre, adopter box and copper flexible for joints, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required	24.00	RM	INR		0.00
47	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	240.00	meter	INR		0.00
48	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	8.00	Set	INR		0.00
49	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	1500.00	Metre	INR		0.00
50	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Upto 35 sq. mm	300.00	Metre	INR		0.00
51	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 95 sq. mm and upto 185 sq. mm	570.00	Metre	INR		0.00
52	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 185 sq. mm and upto 400 sq. mm	300.00	Metre	INR		0.00
53	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Upto 35 sq. mm	50.00	Metre	INR		0.00
54	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Above 95 sq. mm and upto 185 sq. mm	50.00	Metre	INR		0.00
55	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required. Above 185 sq. mm and upto 400 sq. mm	50.00	Metre	INR		0.00
56	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. Above 95 sq. mm and upto 185 sq. mm	20.00	Metre	INR		0.00
57	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required. Above 185 sq. mm and upto 400 sq. mm	20.00	Metre	INR		0.00

58	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Upto 35 sq. mm (clamped with 1mm thick saddle)	1000.00	Metre	INR		0.00
59	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	500.00	Metre	INR		0.00
60	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required. Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	20.00	Metre	INR		0.00
61	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	50.00	Each	INR		0.00
62	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required. Above 120 sq. mm and upto 400 sq. mm	2500.00	Metre	INR		0.00
63	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3½C X 185 sq. mm (57mm)	30.00	Each	INR		0.00
64	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3 X 120 sq. mm (28mm)	30.00	Each	INR		0.00
65	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. 3 X 240 sq. mm (62mm)	30.00	Each	INR		0.00
66	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required : 120 sq. mm	6.00	Each	INR		0.00
67	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required : 240 sq. mm	12.00	Each	INR		0.00
68	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.Ten Loop Panel	1.00	Each	INR		0.00
69	Supplying, installation, testing & commissioning of central graphical fire alarm management system to centrally monitor and operate the fire alarm system complete as required.	1.00	Each	INR		0.00
70	Supplying, installation, testing & commissioning of repeater panel wih 320 character/ Touch screen LCD display with inbuilt reset, acknowledge and silence switches complete as required.	1.00	Each	INR		0.00

71	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required	447.00	Each	INR		0.00
72	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	230.00	Each	INR		0.00
73	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	35.00	Each	INR		0.00
74	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed temperature thermistor complete with base as required.	40.00	Each	INR		0.00
75	Supplying, installation, testing & commissioning of addressable fire control module complete as required.	12.00	Each	INR		0.00
76	Supplying, installation, testing & commissioning of addressable phone control module complete as required.	12.00	Each	INR		0.00
77	Supplying, installation, testing & commissioning of intelligent addressable duct detector including suitable Photo detector complete with base as required.	6.00	Each	INR		0.00
78	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	12.00	Each	INR		0.00
79	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.	12.00	Each	INR		0.00
80	Supplying, installation, testing & commissioning of fire fighter telephone handset complete as required.	2.00	Each	INR		0.00
81	Supplying, installation, testing & commissioning of fire fighter phone jack complete as required.	12.00	Each	INR		0.00
82	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	1.00	Each	INR		0.00
83	Supplying, installation, testing & commissioning of 1.5/3/6W ceiling speaker complete as required.	170.00	Each	INR		0.00
84	Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	11.00	Each	INR		0.00
85	Supplying, installation, testing & commissioning of digital audio amplifier 75 Watt, 25V rms operating at 240 Volt AC Supply complete as required.	15.00	Each	INR		0.00
86	Supplying, installation, testing & commissioning of Voice command keypad 6 zone, with microphone assembly complete as required.	1.00	Each	INR		0.00
87	Supplying & laying of 2x1.5 sqmm fire survival armoured cable, 600/1000V rated with annealed copper conductor having glass mica fire barrier tape covered by an extruded layer of Cross Linkable Ethylene Propylene Rubber (EPR) insulation and LSZH inner bedding, steel wire armouring & LSZH outer sheath complete as required.	10000.00	Metre	INR		0.00
88	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.speaker cable Single pair, 2-core, 1.5 sqmm	6000.00	Metre	INR		0.00
89	Supplying and fixing 25 mm dia MS flexible pipe with PVC coating along with all ancillaries and accessories like coupler etc. as required.	1000.00	Metre	INR		0.00
90	Supplying and fixing of 25 mm dia. medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	11000.00	Metre	INR		0.00

91	<p>Supply,Installation,Testing and Commissioning of ongrid SolarPhotovoltaic Power Plant conforming to MNRE specifications as amended,consisting of Mono/PolyCrystallinesilicon solar cells,netmetering facility,necessary protections,earthing,mounted on Aluminium/GI structure of suitable strength with following components complete as required:-a)SolarPhotovoltaic Module of capacity 330Wp or above,manufactured in India,conforming to IS14286/ IEC61215, IS/IEC61730-Part-1, IS/IEC61730-Part-2. SolarPhotovoltaic Module conversion efficiency shall not be less than 16.5%. PVmodules used in solar power plants/systems must be warranted for their output peak wattcapacity, which should not belessthan 90% attheendof10yearsand80% at theend of 25 years.b)Power ConditioningUnit(PCU)of 350-800VDC Input voltage rangeand400VAC,threephase,4wire,50Hz+/-2.5Hz,outputvoltagesuitableto generateAC Power with efficiencynotless than97%,totalharmonicdistortionless than3%andsuitablefor ambienttemperature from 0to50degreeC.ThePCUshalladjustthevoltage and frequency level to suit the Grid Voltage Frequency.c) Data Monitoring System complete with accessories.d)FixingofArray junction box&MainjunctionboxwithIP65protectionandtermination arrangement forincomingandoutgoing cablealongwithglands,lugsand other accessories etc. as required.e) Lightning and surge voltage protection.f)Connections & Interconnectionsby supplying & fixing requiredsize XLPE insulatedcopperconductor1.1kV grade armoured powerand controlcablesbetweensolarmodules,mainpowercabletogridsupplyPCUunitalongwithsupplying&fixingofnecessa rychannel/conduitlugsandotheraccessoriesetc.asrequired.</p>	60.00	kwp	INR		0.00
92	<p>Supply, installation, testing & commissioning of 36 W Linear LED luminaire delivering an initial system lumen of 3600 lumens & the luminaire shall be with system efficacy ≥ 100 lm / W. The luminaire Housing shall be made of Extruded Aluminium & the diffuser shall be of polycarbonate/PMMA. The operating CCT shall be 5700K/6500K with CRI of ≥ 80. The luminaire shall be with BIS Registered electronic driver with input voltage range of 150 to 270V , THD $\leq 20\%$ & PF ≥ 0.9 , 50,000 Hrs LED Life with L70 Criteria, IP20. The LED Driver shall be easily available in India for repair and service. The LED shall be SMD type. Luminaire shall have minimum surge protection of 3KV.The luminaire shall be with following certifications: LM79 & LM80 issued by LED manufacture along with Photo Biological Safety Standard. Wipro Cat No.: LL22-511-XXX-65-G1 or equivalent.</p>	274.00	Each	INR		0.00
93	<p>Supply, installation, testing & commissioning of 10 W Linear LED luminaire delivering an initial system lumen of 903 lumens & the luminaire shall be with system efficacy ≥ 90 lm / W. The luminaire Housing shall be made of Co-extruded channel in thermally conductive material with plastic & the diffuser shall be HET. The operating CCT shall be 6500K with CRI of ≥ 80. The luminaire shall be with BIS Registered electronic driver with input voltage range of 150 to 270V , THD $\leq 20\%$ & PF ≥ 0.9 , 50,000 Hrs LED Life with L70 Criteria, IP20. The LED Driver shall be easily available in India for repair and service. The LED shall be SMD type. Luminaire shall have minimum surge protection of 2KV.The luminaire shall be with following certifications: LM79 & LM80 issued by LED manufacture along with Photo Biological Safety Standard. Wipro Cat No.: LL20-111-XXX-65-NE3 or equivalent.</p>	55.00	Each	INR		0.00

94	Supply, Installation, testing & commissioning of of Recessed Round Led Downlighter consuming a system wattage of 18W (±10%) delivering an initial system lumen of 1800 lumens & the luminaire shall be with system efficacy ≥ 100 lm / W. Housing: Die Cast Aluminium. IP40, SDCM ≤ 5, Optics: PMMA/Polysterene Diffuser. The operating CCT shall be 5700K with CRI of ≥80. The luminaire shall be with BIS Registered with input voltage range of 90 to 265V AC , THD ≤ 10% & PF ≥ 0.9, 50,000 Hrs LED Life with L70 Criteria. The LED Driver shall be easily available in India for repair and service. The LED shall be SMD type. Luminaire shall have minimum surge protection of 2KV.The luminaire shall be with following certifications: LM79 & LM80 issued by LED manufacture along with Photo Biological Safety Standard. Similar to Wipro Cat LD06-221-XXX-57-XX or equivalent.	766.00	Each	INR		0.00
95	Supply, Installation, testing and commissioning of Recess mounted 36 W LED 2'x2' luminaire delivering an initial system lumen of 3600 lumens & the luminaire shall be with system efficacy ≥ 100 lm / W. Housing: CRCA, Rim: Engineering plastic/CRCA. Optics: Polycarbonate/PMMA/Polysterene, IP20 Protection. The operating CCT shall be 5700K with CRI of ≥80. The luminaire shall be BIS Registered with input voltage range of 150 to 270V , THD ≤ 10%, SDCM ≤ 5 & PF ≥ 0.95, 50,000 Hrs LED Life with L70 Criteria. The LED Driver shall be easily available in India for repair and service. The LED shall be SMD type. Luminaire shall have minimum surge protection of 2KV.The luminaire shall be with following certifications: LM79 & LM80 issued by LED manufacture along with Photo Biological Safety Standard. Similar to Wipro Cat CRCO10R038HP57GL1 or equivalent.	726.00	Each	INR		0.00
96	Supply, installation, testing and commissioning of Recess mounted 34 W Direct/ Indirect LED 2'x2' luminaire delivering an initial system lumen of 3660 lumens & the luminaire shall be with system efficacy ≥ 105 lm / W. Housing: CRCA, Rim: Engineering plastic/CRCA. Optics: Polycarbonate/PMMA/Polysterene, IP20 Protection. The operating CCT shall be 5700K with CRI of ≥80. The luminaire shall be BIS Registered with input voltage range of 150 to 270V , THD ≤ 10%, SDCM ≤ 5 & PF ≥ 0.95, 50,000 Hrs LED Life with L70 Criteria. The LED Driver shall be easily available in India for repair and service. The LED shall be SMD type. Luminaire shall have minimum surge protection of 2KV.The luminaire shall be with following certifications: LM79 & LM80 issued by LED manufacture along with Photo Biological Safety Standard. Similar to Wipro Cat LM38-461-XXX-57-XX or equivalent.	72.00	Each	INR		0.00
97	Supply, installation, testing & commissioning of 10 W Bulk Head Luminaire delivering an initial system lumen of 1000 lumens & the luminaire shall be with system efficacy ≥100 lm / W. Housing: Die Cast Aluminium. IP65 , Diffuser : OPAL Polycarbonate. The operating CCT shall be 5700K with CRI of ≥80. The luminaire shall be with BIS Registered electronic driver with input voltage range of 150 to 270V , THD ≤ 10% & PF ≥ 0.95, 50,000 Hrs LED Life with L70 Criteria. The LED Driver shall be easily available in India for repair and service. The LED shall be SMD type. Luminaire shall have minimum surge protection of 2.5KV.The luminaire shall be with following certifications: LM79 & LM80 issued by LED manufacture along with Photo Biological Safety Standard. Wipro Cat No.: LW07-141-XXX-57-G1 or equivalent	24.00	Each	INR		0.00
98	Supply, installation, testing & commissioning of exhaust fan 300 mm dia ,6 poles , Air Delivery 1290 cum/hr , rated speed 1350 rpm ,220 Volts PF 0.85 double ball bearing complete with blades, metal louvers etc.	42.00	Each	INR		0.00
99	Supply, installation, testing & commissioning of WALL fan 400 mm sweep BLDC with remote energy efficient (Five star rating)220 volts PF 0.85including hanging and connecting up including flexible copper wire for connections from ceiling rose or connector to fan including blades, condensers, down rod, regulator (electronic) etc. complete	212.00	Each	INR		0.00

100	Supply, installation, testing & commissioning of 3.5CX25 SQMM Aluminium Conductor of XLPE insulated PVC sheathed Armoured UG Cables graded 1.1 KV for working Voltage upto 1100 Volts of Following Sizes including the end Termination as required (For Lift)	100.00	RM	INR		0.00
101	Providing & fixing of 19 mm thick Rubber Mat ISI marks for electrical panel safety purpose.	10.00	sqm	INR		0.00
102	Supply, installation, testing & commissioning of Electrical Kitchen chimney width 90 cms suction 1300m3 /hr , 3 layer baffle filter , LED 2X2 Watt lights , Fan copperwound motor 3 speed with overload protection , feather touch push button, soft stainlesssteel body with SS hood and accessries complete all as specified	1.00	Each	INR		0.00
103	Supply, installation, testing and commissioning of 300 mm wide x 38 mm deep raceway (3 compartment) under floor GI (hot dip galvanized) raceways made out of 1.6 mm thick sheet steel,with internal compartments complete with jointing sleeves and other accessories under floor installation including cutting and chasing the floor, making good the same ,placing in position and cleaning from inside complete of following sizes etc. as required.	1200.00	RM	INR		0.00
104	Supply, installation, testing and commissioning of 100 mm wide x 38 mm deep raceway (3 compartment) under floor GI (hot dip galvanized) raceways made out of 1.6 mm thick sheet steel,with internal compartments complete with jointing sleeves and other accessories under floor installation including cutting and chasing the floor, making good the same ,placing in position and cleaning from inside complete of following sizes etc. as required.	600.00	RM	INR		0.00
105	Design, manufacturing, supplying, installation, testing & commissioning of 13 passenger (884 kg) lift having contract speed of 1MPS used for G+5 storied Asset Building, refer technical specifications:	4.00	Nos.	INR		0.00
106	<p>1. HT Panel</p> <p>Supply, Installation, Testing and Commissioning of 11 kV VCB Panel 11 kV Switchgear Panel comprising of 6 nos. of indoor type VCB panels, suitable for solidly grounded system, fully factory built and assembled for direct installation. The panels should be designed, manufactured and tested in accordance with relevant IS / IEC with latest amendment.</p> <p>1. Construction</p> <p>The VCB (cubicle and circuit breaker) panel should be made of steel clad, free standing, floor mounting, dust and vermin proof and horizontal isolation horizontal draw out, compartmentalized type, indoor switch board in standard execution with VCB.</p> <p>The draw out type circuit breaker cubicles should be fabricated using high quality CRCA/GI steel sheet/Aluzinc material as per standard. The sheet metal should be given minimum seven/nine tank anti corrosion treatment & then powder coated colour- SIEMENS GREY or equivalent.</p> <p>The totally metal enclosed panel shall be compartmentalized with internal positioning by insulated material of epoxy-reinforced fibreglass to constitute the following:</p> <p>a) Bus bar compartment</p> <p>b) Circuit Breaker Compartment.</p> <p>c) CT and Cable compartment.</p> <p>d) Relay & metering compartment (LT compartment).</p> <p>As required and as per technical specifications</p>	1.00	set	INR		0.00

107	<p>Supply, Installation, testing and commissioning of 2 Nos. of Cast Resin Dry Type, 1000 KVA, 11/0.415 KV, 3 Phase, 50Hz, Dyn11, indoor type, copper wound transformer with OFF load tap changing arrangement on HV side $\pm 5\%$ in steps of 2.5%, having cable end boxes on HV side suitable for 3x1Cx240 Sqmm XLPE, copper cable of 11KV grade on HT side and 6x4Cx 240sqmm XLPE, 1.1KV, Cu cable on LV side complete with all accessories. Neutral of transformer shall be earthed with 2 nos. earth electrodes and body shall be earthed with minimum 2 nos. Earth electrode. Transformer shall be mounted on suitable size of channel which is to be fixed by grouting 4nos. of bolts. The winding material should be of high conductivity electrolytic grade copper. The insulation should be Cast Resin type; Class-F. Conductor should have thermally upgraded paper insulation reinforced with fibre glass. The coil assembly is to be impregnated & cast under vacuum with epoxy resin for achieving non-hygroscopic, acid & alkali resistant insulation. The complete winding should have smooth cylindrical finish after impregnation to ensure high mechanical strength. The thickness of resin should be uniform. The insulation should be self- extinguishing type.</p> <p>Winding temperature scanner connected with three nos. RTDs, one for each LV winding should be provided in a metallic enclosure that is mounted on the main enclosure. The scanner should provide indication, alarm & trip contacts. Winding temperature indicator should show maximum temperature attained. The RTDs should be properly wired up to the scanner terminals. Suitable hole with gland is required for control cable connecting scanner alarm/ trip contacts to HT Breaker.</p>	1.00	Each	INR		0.00
108	<p>Supply Installation,testing and commissioning of 180 KVA, 415V, 50Hz, DG Set with AMF Panel complete with 1500 RPM Diesel Engine of suitable BHP & AC Brush less SPDP Alternator mounted on a common base Frame & coupled through a flexible coupling or close coupled. Alternator: It shall be self regulated, self excited and confirms to IS: 13364/1992 or latest version with regulation of +5% from No load to full load, IP23, with standard Alternator Protection(Over voltage, over speed & under voltage). Diesel Engine: It shall have residential silencer, up to 10 M exhaust piping , electronic / Mechanical governor, Manual & electric Start, Batteries, Fuel tank (with Stand) & piping, control panel (16 G) with MCCB (4P; 25 KA), Ammeter, Voltmeter, Frequency Meter, Energy Meter & Hour Meter, Engine instruments panel and AVM. The diesel engine shall be capable of providing 10% over load for 1 Hr for every 11 Hrs of continuous running at full load. Accoustic Enclosure: Weatherproof, powder coated Accoustic enclosure for DG set for sound attenuation fabricated from 1.6 mm CRCA sheet steel structure) with side wall fabricated from 1.6 mm CRCA sheet and filled with foam as per CPCB norms latest amendments & IS 8183 .The doors are fabricated from 1.6 mm CRCA sheet packed with accoustic material, floor of MS chequered plate 5.0 mmthick, All doors/ opening are sealed with neoprene/ EPDN gaskets. The enclosure has built in fuel tank, residential silencer (isolated from main DG chamber) with protection and tripping of DG set against temperature of more than 50 °C. All controls for operation of DG set are from outside the enclosure with DG control panel having processor based genset monitoring and control system MCCB/ACB Ammeter, voltmeter, Pf meter, frequency meter, KWH meter, Ind. Lamps etc. mounted inside enclosure , visible and accessible from outside. The enclosure should be suitable for following capacity DG sets and alternator.Noise level is less than 75 db (A) at a distance of 1 Mtrs as per CPCB-II norms,complete in all respect as required and as per technical specification.</p>	1.00	set	INR		0.00

109	Supply, installation, testing and commissioning of XLPE/PVC insulated & PVC sheathed copper unarmoured control cables of 1.1 KV grade with copper conductor as per IS 7098 Part-I -1988 etc complete.including making terminations of control cable terminations for control cables as per item 7.6 above complete with single brass compression glands, copper lugs etc. as required: 4 C x 2.5 sq.mm control cable	50.00	Metre	INR		0.00
110	Supply, installation, testing and commissioning of XLPE/PVC insulated & PVC sheathed copper unarmoured control cables of 1.1 KV grade with copper conductor as per IS 7098 Part-I -1988 etc complete.including making terminations of control cable terminations for control cables as per item 7.6 above complete with single brass compression glands, copper lugs etc. as required:12 C x 2.5 sq.mm control cable	120.00	Metre	INR		0.00
111	Supply of XLPE insulated IS:7098/II/85 H.T.cable for working voltage 11 K.V.Earthed with Stranded Compacted Circular Aluminium Conductor Screened with Extruded Semiconducting compound, Al,XLPE Insulated Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST- 2 Outer Sheathed cable etc complete 3 C x 240 Sq.mm XLPE HT cable (Earthed)	2500.00	Metre	INR		0.00
112	Supply of XLPE insulated IS:7098/II/85 H.T.cable for working voltage 11 K.V.Earthed with Stranded Compacted Circular Aluminium Conductor Screened with Extruded Semiconducting compound, Al,XLPE Insulated Screened with extruded semi-conducting compound in combination with Copper Tape, cores laid up, inner sheath of Thermoplastic tape, galvanised flat steel strip armoured and overall Extruded PVC Type ST- 2 Outer Sheathed cable etc complete 3C x 120 Sq.mm XLPE HT cable (Earthed)	1500.00	Metre	INR		0.00
113	Supply of 1.1 KV Aluminium Conductor,FRLS,XLPE Insulated, Steel Strip Armoured, Inner and outer sheathed cables as per IS 7098 (Part-1) of 4C x 240 sq mm Aluminium	300.00	Metre	INR		0.00
114	Supply of 1.1 KV Aluminium Conductor,FRLS,XLPE Insulated, Steel Strip Armoured, Inner and outer sheathed cables as per IS 7098 (Part-1) of 3C x 120 sq mm Aluminium	20.00	Metre	INR		0.00
115	Supply of 1.1 KV Aluminium Conductor,FRLS,XLPE Insulated, Steel Strip Armoured, Inner and outer sheathed cables as per IS 7098 (Part-1) of 3 ½ C - 185 sq mm Aluminium	500.00	Metre	INR		0.00
116	Supply of 1.1 KV Aluminium Conductor,FRLS,XLPE Insulated, Steel Strip Armoured, Inner and outer sheathed cables as per IS 7098 (Part-1) of 3 ½ C- 25 sq mm Aluminium	100.00	Metre	INR		0.00
117	Supply of 1.1 KV Aluminium Conductor,FRLS,XLPE Insulated, Steel Strip Armoured, Inner and outer sheathed cables as per IS 7098 (Part-1) of 4C- 16 sq mm Aluminium	50.00	Metre	INR		0.00
118	Supply of 1.1 KV Aluminium Conductor,FRLS,XLPE Insulated, Steel Strip Armoured, Inner and outer sheathed cables as per IS 7098 (Part-1) of 4C- 10 sq mm Aluminium	200.00	Metre	INR		0.00

119	<p>Design, fabrication,Supply, installation, testing & commissioning of cubicle type LT panel suitable for 415V, 3 Phase, 4 Wire 50 Hz AC supply system.</p> <p>The PCC shall be floor mounted, freestanding, totally enclosed and extensible type. The PCC shall be dust & vermin proof and shall include all provisions for safety of operation and maintenance personnel. The general construction shall conform to relevant IS / IEC with latest amendment for factory assembled switchboard.</p> <p>The PCC Panel shall be fabricated in compartmentalized design from CRCA/GI/Aluzinc sheet steel for frame work with angle iron/ channel and covers, and as per standard for gland plates. The entire metal work shall be treated with minimum seven/nine tank antirust treatment and then powder coated in DA Grey colour or equivalent. Panel shall have TPN copper bus bars of high conductivity with short circuit withstand capacity of 50KA for 1 Sec; bottom base channel of MS section as per standard, fabrication shall be done in transportable sections, entire panel shall have a common GI earth bar at the rear with 2 Nos. earth stud, solid connections from main bus bar to switch gears with required size of copper bus bars and control wiring with 2.5 sq. mm PVC insulated copper conductor FRLS cable, cable alleys and cable gland plates. The bus chamber shall have front and rear bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity Copper Bus Bars, conforming to BIS. Current rating of bus bar sections shall be 2500 amps suitable for 415 V AC, 50 Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non-inflammable SMC / FRP supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec. All risers and connections from bus bar shall be done with same material as the main bus bars of current rating as per rating of individual cubicle switch. To suit the stringent site conditions, the bus bar system shall be designed with generous clearance between phases as specified in the standards. Adequate non-hygroscopic insulating sheet barriers between the bus chambers and feeders shall be provided. And as reuired and as per technical Specifications.</p>	1.00	SET	INR		0.00
120	<p>Emergency panel</p> <p>Design &Supply of Building Panel wiring and supply of front operated dead front cubicle type compartmentalised as per Form 3B, rear access free standing, dust and vermin proof (IP 42 ingress protection) main switchboards suitable for use at 415 volts, 3 phase 4 wire 50 Hertz system suitable for a symmetrical fault level of 25 kA at 415 volts, fabricated from 2 mm thick CRCA MS sheets with hinged, gasketted (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/T/flat sections including 3 mm thick gland plates on top and bottom and including lifting hooks and including GI earth strip of required size with 2 nos earthing terminals and including powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with interconnections etc as per specifications, as required and as per technical specofications.</p>	1.00	SET	INR		0.00

121	<p>Floor Lighting distribution Panel</p> <p>Design, fabrication, Supply, installation, testing & commissioning of Floor Lighting distribution Panel, free standing, dust and vermin proof (IP 42 ingress protection) main switchboards suitable for use at 415 volts, 3 phase 4 wire 50 Hertz system suitable for a symmetrical fault level of 25 kA at 415 volts, fabricated from 2 mm thick CRCA MS sheets with hinged, gasketted (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/T/flat sections including 3 mm thick gland plates on top and bottom and including lifting hooks and including GI earth strip of required size with 2 nos earthing terminals and including powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with interconnections etc as required and as per technical specifications.</p>	6.00	SET	INR		0.00
122	<p>Floor Power distribution Panel</p> <p>Design, fabrication, Supply, installation, testing & commissioning of Floor Power distribution Panel, free standing, dust and vermin proof (IP 42 ingress protection) main switchboards suitable for use at 415 volts, 3 phase 4 wire 50 Hertz system suitable for a symmetrical fault level of 25 kA at 415 volts, fabricated from 2 mm thick CRCA MS sheets with hinged, gasketted (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/T/flat sections including 3 mm thick gland plates on top and bottom and including lifting hooks and including GI earth strip of required size with 2 nos earthing terminals and including powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with interconnections etc as required and as per technical specifications.</p>	6.00	SET	INR		0.00
123	<p>UPS Panel</p> <p>Design, fabrication, Supply, installation, testing & commissioning of UPS Panel, free standing, dust and vermin proof (IP 42 ingress protection) main switchboards suitable for use at 415 volts, 3 phase 4 wire 50 Hertz system suitable for a symmetrical fault level of 25 kA at 415 volts, fabricated from 2 mm thick CRCA MS sheets with hinged, gasketted (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/T/flat sections including 3 mm thick gland plates on top and bottom and including lifting hooks and including GI earth strip of required size with 2 nos earthing terminals and including powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with interconnections etc as required and as per technical specifications.</p>	1.00	SET	INR		0.00
124	<p>PLUMBING PANEL</p> <p>Design, fabrication, supply, installation, testing & commissioning of front operated cubicle type compartmentalised, rear access free standing, dust and vermin proof (IP 54 ingress protection) main switchboards suitable for use at 415 volts, 3 phase 4 wire 50 Hertz system suitable for a symmetrical fault level of 50 kA at 415 volts, fabricated from 2 mm thick CRCA MS sheets with hinged, gasketted (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/T/flat sections including 3 mm thick gland plates on top and bottom and including lifting hooks and including GI earth strip of required size with 2 nos earthing terminals and including powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with interconnections etc as per specifications and Drawings/SLD, as required and as per technical specifications.</p>	1.00	SET	INR		0.00
125	<p>Providing and fixing 50 mm X 5 mm G.I. strip in 100 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.</p>	500.00	Metre	INR		0.00

126	Supply, installation, testing & commissioning of 9 m GI octagonal pole with base plate 260x260x16 mm, top-70mm & bottom-155mm. Made of 3 mm thick suitable for maximum wind speed upto 160 km/h.including foundation bolts, & bracket arm1.2 mtr. Long and civil foundation complete in all respect.	30.00	each	INR		0.00
127	SITC of four core aluminium conductor XLPE insulated 1.1 KV armoured cable 4 core 10 Sq.mm.	900.00	RM	INR		0.00
128	SITC of 3 x 2.5 sq.mm PVC insulated Copper conductor single core wire in the existing steel pole and making connections as required.	560.00	RM	INR		0.00
129	Supply, installation, testing & commissioning of LED 60 W street light fitting with LED 60 Watt Bulb Complete Philips or equivalent complete including fixing clamp and pipe / nipple suitable for mounting on 40 or 50 mm dia GI mast or bracket arms with pole fixing attachments and fixing the lamp.	30.00	Each	INR		0.00
130	Design, fabrication, supply, installation, testing and commissioning of, 415 V, 3 phase, 50 Hz. street light Panel dust, vermin and weather proof outdoor type IP54 rating, 2.0 mm thick CRCA sheet enclosure and hinged and lockable door with components as below complete as required of following rating. The Panel shall be complete with all interconnections, internal wiring with copper wire of suitable size, labels etc suitable for mounting: Incoming-63 Amp TPN MCCB with Rotating handle, thermo-magnetic O/C, SC & E/F release 16 KA breaking capacity 100 Amps AI Bus bar Outgoing - 32 Amp TPN MCB 10 KA - 8 Nos. 8 Nos. 32A TPN contactor	1.00	each	INR		0.00
131	Supply ,Installation,Testing & Commissioning of modular type Variable Refrigerant Flow/ Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s) , minimum two compressors for above 14HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R410A Refrigerant,vibration isolators, with suitable foundation etc.complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V+/-10%, 3Phase, 50HzAC power supply. The unit shall be filled with first charge of the refrigerant andready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5 .	352.00	Per HP	INR		0.00
132	Supply, installation, testing and commissioning of 1.6 TR capacity 4-way flow VRV/VRF Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fansection with low noise fan/ dynamically balanced blower,multi speed motor,coil section with DX Copper coil,electronic expansion valve,outer cabinet, drain pump, grill, necessary supports,vibration isolation, cordless remote control etc., suitable for operation on single phase 230V ± 10%,50Hz AC supply, complete, as required.The unit shall have automatic force shut down provision incase offire on receiving signal from BMS System.Thecooling capacity of indoor unit will be at airinlet conditions of 27 DegreeC D Band 19 Degree CWB temperature.	2.00	Nos.	INR		0.00
133	Supply, installation, testing and commissioning of 1.0 TR capacity 4-way flow VRV/VRF Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fansection with low noise fan/ dynamically balanced blower,multi speed motor,coil section with DX Copper coil,electronic expansion valve,outer cabinet, drain pump, grill, necessary supports,vibration isolation, cordless remote control etc., suitable for operation on single phase 230V ± 10%,50Hz AC supply, complete, as required.The unit shall have automatic force shut down provision incase offire on receiving signal from BMS System.Thecooling capacity of indoor unit will be at airinlet conditions of 27 DegreeC D Band 19 Degree CWB temperature.	60.00	Nos.	INR		0.00

134	Supply, installation, testing and commissioning of 1.2 TR capacity 4-way flow VRV/VRF Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fansection with low noise fan/ dynamically balanced blower,multi speed motor,coil section with DX Copper coil,electronic expansion valve,outer cabinet, drain pump, grill, necessary supports,vibration isolation, cordless remote control etc., suitable for operation on single phase 230V \pm 10%,50Hz AC supply, complete, as required.The unit shall have automatic force shut down provision incase offire on receiving signal from BMS System.Thecooling capacity of indoor unit will be at airinlet conditions of 27 DegreeC D Band 19 Degree CWB temperature.	12.00	Nos.	INR		0.00
135	Supply, installation, testing and commissioning of 1.6 TR capacity 4-way flow VRV/VRF Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fansection with low noise fan/ dynamically balanced blower,multi speed motor,coil section with DX Copper coil,electronic expansion valve,outer cabinet, drain pump, grill, necessary supports,vibration isolation, cordless remote control etc., suitable for operation on single phase 230V \pm 10%,50Hz AC supply, complete, as required.The unit shall have automatic force shut down provision incase offire on receiving signal from BMS System.Thecooling capacity of indoor unit will be at airinlet conditions of 27 DegreeC D Band 19 Degree CWB temperature.	5.00	Nos.	INR		0.00
136	Supply, installation, testing and commissioning of 2.0 TR capacity 4-way flow VRV/VRF Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fansection with low noise fan/ dynamically balanced blower,multi speed motor,coil section with DX Copper coil,electronic expansion valve,outer cabinet, drain pump, grill, necessary supports,vibration isolation, cordless remote control etc., suitable for operation on single phase 230V \pm 10%,50Hz AC supply, complete, as required.The unit shall have automatic force shut down provision incase offire on receiving signal from BMS System.Thecooling capacity of indoor unit will be at airinlet conditions of 27 DegreeC D Band 19 Degree CWB temperature.	1.00	Nos.	INR		0.00
137	Supply, installation, testing and commissioning of 2.4 TR capacity 4-way flow VRV/VRF Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fansection with low noise fan/ dynamically balanced blower,multi speed motor,coil section with DX Copper coil,electronic expansion valve,outer cabinet, drain pump, grill, necessary supports,vibration isolation, cordless remote control etc., suitable for operation on single phase 230V \pm 10%,50Hz AC supply, complete, as required.The unit shall have automatic force shut down provision incase offire on receiving signal from BMS System.Thecooling capacity of indoor unit will be at airinlet conditions of 27 DegreeC D Band 19 Degree CWB temperature.	2.00	Nos.	INR		0.00
138	Supply,installation,testing and commissioning of 1.0 TR capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter ,fan section with low noise fan/ dynamically balanced blower,multi speed motor,coil sectionwith DXcopper coil,electronic expansion valve, outer cabinet,cordless remotecontrol, drainpan,necessary accessories etc., suitable for operation on 230V \pm 10%, 50Hz, single phase AC supply,complete as required. The unit shall have automaticforce shutdown provision incaseoffireon receiving signal from BMS System.The cooling capacity of indoorunit will beat airinl etc conditions of27 Degree C DB and 19 Degree C WB temperature.	6.00	Nos.	INR		0.00

139	Supply,installation,testing and commissioning of 1.45 TR capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter ,fan section with low noise fan/ dynamically balanced blower,multi speed motor,coil sectionwith DXcopper coil,electronic expansion valve, outer cabinet,cordless remotecontrol, drainpan,necessary accessories etc., suitable for operation on 230V±10%, 50Hz, single phase AC supply,complete as required. The unit shall have automaticforce shutdown provision incaseofffireon receiving signal from BMS System.The cooling capacity of indoorunit will beat airinl etc conditions of27 Degree C DB and 19 Degree C WB temperature.	15.00	Nos.	INR		0.00
140	Supply,installation,testing and commissioning of 2.0 TR capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter ,fan section with low noise fan/ dynamically balanced blower,multi speed motor,coil sectionwith DXcopper coil,electronic expansion valve, outer cabinet,cordless remotecontrol, drainpan,necessary accessories etc., suitable for operation on 230V±10%, 50Hz, single phase AC supply,complete as required. The unit shall have automaticforce shutdown provision incaseofffireon receiving signal from BMS System.The cooling capacity of indoorunit will beat airinl etc conditions of27 Degree C DB and 19 Degree C WB temperature.	3.00	Nos.	INR		0.00
141	Supply,installation,testing andcommissioning of 4 TR capacity and external static pressure VRF/VRVceiling mounted ductable type Indoor unitequipped withwashable synthetic mediapre-filter, fan sectionwith low noise fan / dynamically balanced blower, multi speedmotor,coil section with DX copper coil,electronic expansion valve,corded remote control,outer cabinet,vibration isolators,drainpan, other necessary supports etc., suitable foroperationonsingle phase AC supply 230V± 10%, 50Hzcompleteasrequired.The unit shall have automatic force shutdown provision in case of fire on receiveing signal from BMS System.The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.	4.00	Nos.	INR		0.00
142	Supply,installation,testing and commissioning of 5.5 TR capacity and external static pressure VRF/VRVceiling mounted ductable type Indoor unitequipped withwashable synthetic mediapre-filter, fan sectionwith low noise fan / dynamically balanced blower, multi speedmotor,coil section with DX copper coil,electronic expansion valve,corded remote control,outer cabinet,vibration isolators,drainpan, other necessary supports etc., suitable foroperationonsingle phase AC supply 230V± 10%, 50Hzcompleteasrequired.The unit shall have automatic force shutdown provision in case of fire on receiveing signal from BMS System.The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.	14.00	Nos.	INR		0.00
143	Supply,installation,testing and commissioning of 7.1 TR capacity and external static pressure VRF/VRVceiling mounted ductable type Indoor unitequipped withwashable synthetic mediapre-filter, fan sectionwith low noise fan / dynamically balanced blower, multi speedmotor,coil section with DX copper coil,electronic expansion valve,corded remote control,outer cabinet,vibration isolators,drainpan, other necessary supports etc., suitable foroperationonsingle phase AC supply 230V± 10%, 50Hzcompleteasrequired.The unit shall have automatic force shutdown provision in case of fire on receiveing signal from BMS System.The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.	7.00	Nos.	INR		0.00

144	Supply,installation,testing and commissioning of 8.0 TR capacity and external static pressure VRF/VRVceiling mounted ductable type Indoor unitequipped withwashable synthetic mediapre-filter, fan sectionwith low noise fan / dynamically balanced blower, multi speedmotor,coil section with DX copper coil,electronic expansion valve,corded remote control,outer cabinet, vibration isolators,drainpan, other necessary supports etc., suitable for operation on single phase AC supply 230V± 10%, 50Hz complete as required.The unit shall have automatic force shutdown provision in case of fire on receiveing signal from BMS System.The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.	6.00	Nos.	INR		0.00
145	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 6.4 mm dia(OD) (Softdrawn) with tube thickness 1.2mm with 19mm thick insulation copper refrigerant piping for VRV/VRF system, complete with fittings,with suitable adjustable ring type hanger supports,joining/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	517.00	RMT	INR		0.00
146	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 9.5 mm dia(OD) (Softdrawn) with tube thickness 1.2mm with 19mm thick insulation copper refrigerant piping for VRV/VRF system, complete with fittings,with suitable adjustable ring type hanger supports,joining/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	310.00	RMT	INR		0.00
147	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 12.7 mm dia(OD) (Softdrawn) with tube thickness 1.2mm with 19mm thick insulation copper refrigerant piping for VRV/VRF system, complete with fittings,with suitable adjustable ring type hanger supports,joining/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	598.00	RMT	INR		0.00

148	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 15.86 mm dia(OD) (Softdrawn) with tube thickness 1.2mm with 19mm thick insulation copper refrigerant piping for VRV/VRF system, complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	427.00	RMT	INR		0.00
149	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 19.1 mm dia(OD) (Softdrawn) with tube thickness 1.2mm with 19mm thick insulation copper refrigerant piping for VRV/VRF system, complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints, which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	396.00	RMT	INR		0.00
150	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 22.2mmdia (OD)(Harddrawn) with tube thickness1.2mmwith19mm thick insulation copper refrigerant piping for VRV/VRF system,complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints,which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	144.00	RMT	INR		0.00

151	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 25.4 mmdia (OD) (Harddrawn)with tube thickness1.2mmwith19mmthick insulation insulation copper refrigerant piping for VRV/VRF system,complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints,which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	20.00	RMT	INR		0.00
152	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 28.58 mmdia (OD) (Harddrawn)with tube thickness1.2mmwith19mmthick insulation insulation copper refrigerant piping for VRV/VRF system,complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints,which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	427.00	RMT	INR		0.00
153	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 31.8 mmdia (OD) (Harddrawn)with tube thickness1.62mmwith19mmthick insulation insulation copper refrigerant piping for VRV/VRF system,complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints,which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	15.00	RMT	INR		0.00

154	Supply,Installation,testing andcommissioning including vaccumiazation and Nitrogen testing of 34.9 mmdia (OD) (Harddrawn)with tube thickness1.62mmwith19mmthick insulation insulation copper refrigerant piping for VRV/VRF system,complete with fittings,with suitable adjustable ring type hanger supports,jointing/ brazing including accessories ,insulated with XPLE Class-O tubular insulation /with Class- closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as givenbelow for Suctionand Liquidlines, all accessories as per specifications etc. as required. NOTE:-1)The Copper Piping & Piping Circuit should be with Minimum Number of joints,which shall be attained by : (i) Using One End Expanded Tubes (ii) Bending the tubes instead of using elbow joints wherever 90 degree bending is required. (2)Piping should be routed at site in such a manner, that brazed joints in the refrigeration piping are kept to a minimum. (3) The makes of tube fittings shall be same as that of tubes.(4) The thickness of fittings used shall be same as that of the pipe.	341.00	RMT	INR		0.00
155	Providing and fixing of 25mm Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.	1020.00	RMT	INR		0.00
156	Providing and fixing of 32mm Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.	350.00	RMT	INR		0.00
157	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.	975.00	SMT	INR		0.00
158	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.	225.00	SMT	INR		0.00
159	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.	35.00	SMT	INR		0.00
160	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc.	6.00	SMT	INR		0.00
161	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers.	3.00	SMT	INR		0.00
162	Supplying & fixing of powder coated extruded aluminium Return Air Grills without aluminium volume control dampers.	4.50	SMT	INR		0.00
163	Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	14.00	SMT	INR		0.00
164	Supplying, fixing testing commissioning of Return/Exhaust air diffusers of powder coated aluminium without aluminium volume control dampers with anti smudge ring & removable core.	15.00	SMT	INR		0.00

165	Supply and fixing of acoustic lining of supply air duct and plenum with 25 mm thick resin bonded glass wool having density of 32 kg/m ³ , with 25 mm X 25 mm GI section of 1.25 mm thick, at 600 mm centre to centre covered with Reinforced Plastic tissue paper and 0.5 mm thick perforated aluminum sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound etc. complete as required and as per specifications.	171.00	SMT	INR		0.00
166	Supplying and fixing of 19mm thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.	1090.00	SMT	INR		0.00
167	Supply,Installation, Testing and Commissioning of Master Remote Control panel suitable for 64 Nos of Indoor unit including all necessary control wiring. Master Remote Control Panel shall be connected to all indoor/outdoor units. Master Remote Control Panel shall be one touch screen type.	1.00	No.	INR		0.00
168	Supply,Installation, Testing and Commissioning of Master Remote Control panel suitable for 32 Nos of Indoor unit including all necessary control wiring. Master Remote Control Panel shall be connected to all indoor/outdoor units. Master Remote Control Panel shall be one touch screen type.	2.00	Nos	INR		0.00
169	Supply,installation, testing and commissioning of refrigerant Copper Y-joints and T-joints.	136.00	Set	INR		0.00
170	Refrigerant R-410A to top up the system if required.	175.00	Kgs	INR		0.00
171	Supplying, installing, testing and commissioning of 225Ø direct driven Propeller fan as shown in drawings. Each fan shall be complete with permanent split capacitor or shaded pole motor, mounting plate, accessories like wire guard, bird screen and fixed louvers for weather protection as required. Electrical characteristics shall be 220 volt, 1 phase, 50 Hz, AC supply. The prices shall include electrical wiring from socket to fan considering 3 m distance between socket and fan.	6.00	Nos	INR		0.00
172	Supplying, installing, testing and commissioning of 300Ø direct driven Propeller fan as shown in drawings. Each fan shall be complete with permanent split capacitor or shaded pole motor, mounting plate, accessories like wire guard, bird screen and fixed louvers for weather protection as required. Electrical characteristics shall be 220 volt, 1 phase, 50 Hz, AC supply. The prices shall include electrical wiring from socket to fan considering 3 m distance between socket and fan.	9.00	Nos	INR		0.00
173	Supply, installation, testing and commissioning of Inline Fan exhaust fan with centrifugal blower and motor encased in sheet metal casing, as per specifications. The motor shall be suitable for 220 ± 6% V, 50 Hz AC supply. The price shall include fan speed regulator and cowl with bird screen and electrical wiring from socket to fan considering 3 m distance between socket and fan.	11.00	Nos	INR		0.00
174	Supply,installation,testing and commissining of direct driven Tube axial flow fans suitable for installing in any position in Horizontal or vertical with adjustable pitch blade, MS / high duty GSS long Casing , cast aluminium alloy impeller complete with TEFC Sq. Cage Induction type IE 2 motor suitable for 415 volts ± 10%, 50Hz ± 3 %, 4 Pole, three phase A.C supply of class "F" insulation motor's winding with support, mountings, vibration isolators, fire retardant flexible canvass connector 150 mm deep with 25 mm slack at Outlet etc..Quoted rate shall be including of Electrical Panel cabling, earthing etc as required to commission the fan.	4.00	Nos	INR		0.00

175	Supply,installation,testing and commissining of direct driven Tube axial flow fans suitable for installing in any position in Horizontal or vertical with adjustable pitch blade, MS / high duty GSS long Casing , cast aluminium alloy impeller complete with TEFC Sq. Cage Induction type IE 2 motor suitable for 415 volts \pm 10%, 50Hz \pm 3 %, 4 Pole, three phase A.C supply of class "F" insulation motor's winding with support, mountings, vibration isolators, fire retardant flexible canvass connector 150 mm deep with 25 mm slack at Outlet etc..Quoted rate shall be including of Electrical Panel cabling, earthing etc as required to commission the fan.	1.00	No.	INR		0.00
176	Supply,installation,testing and commissining of direct driven Tube axial flow fans suitable for installing in any position in Horizontal or vertical with adjustable pitch blade, MS / high duty GSS long Casing , cast aluminium alloy impeller complete with TEFC Sq. Cage Induction type IE 2 motor suitable for 415 volts \pm 10%, 50Hz \pm 3 %, 4 Pole, three phase A.C supply of class "F" insulation motor's winding with support, mountings, vibration isolators, fire retardant flexible canvass connector 150 mm deep with 25 mm slack at Outlet etc..Quoted rate shall be including of Electrical Panel cabling, earthing etc as required to commission the fan.	2.00	Nos	INR		0.00
177	Supply, installation, testing & commissioning of Double Skin Type Package type Air washer units complete with Cellulose fills, filters, VCD, DWDI blowers with motor, pumps, GI piping, weather proof with accessories housed in insulated GSS cabinet. Blower shall be mounted on metallistik vibration isolators. Blower shall be Nicotra / Kruger make. Quoted rate shall be including of vibration isolators, electrical panel, cabling, earthing etc as required to commissioning the airwasher.	1.00	No.	INR		0.00
178	Supply, installation, testing & commissioning of Double Skin Construction Wet type Air scrubber units complete with Wet Section(18G SS-304 Stainless Steel water storage tank. Tank consisting of 200mm thick Cellulose Pad, GI water distribution arrangement, GI Piping (Between Suction and Discharge), socket connection (for makeup, quickfill, overflow, drain and suction) & Single Phase / Single water Circulating Pump) Cellulose fills, filters, VCD, DWDI blowers with motor, pumps, GI piping, weather proof with accessories housed in insulated GSS cabinet. Blower shall be mounted on metallistik vibration isolators. Blower shall be Nicotra / Kruger make. Quoted rate shall be including of vibration isolators, electrical panel, cabling, earthing etc as required to commissioning the air Scrubber.	1.00	No.	INR		0.00
179	Supply and installation of flexible ducting made of steel helix wire with insulation of fibreglass 25 mm thick and of density 24 kg/ cum covered with AL foil from both sides. Item shall be complete with duct joining clamps, duct sealing tapes , supports etc. Flexible ducts to be hung stretched and not to be left sagging.	210.00	RMT	INR		0.00
180	Supply, installation, testing and commissioning of double canvas for outlet connection of the equipments.	15.00	SMT	INR		0.00
181	Supplying, fixing testing commissioning of powder coated aluminium Fresh/Exhaust air louvers With Damper and Bird screen.	7.00	SMT	INR		0.00
182	Supply and application of 50 mm thick Expanded Polystyrene (TF quality) 24 kg density thermocole under deck insulation.	1273.00	SMT	INR		0.00

183	<p>Design, manufacture, supply, installation, testing and commissioning of the following integrated, cubicle type, dead front, extensible, sheet steel control panels, anchoring the panel to the foundation. The panel shall be suitable for 500 volts, 50 cycles, 4 wire supply. (Incommer power supply to AC panel by others).HVAC contractor has to terminate incoming cable to AC panel along with the incoming switch. Quoted price shall include all necessary internal wiring, earthing. Separate compartments for bus bar and cable alleys. The panel shall have minimum 2 spare compartments. The following components and accessories shall be mounted within the control panel. Contractor has to take approval from consultant/ site engineer incharge the SLD drawings for electrical panel before fabrication</p> <p>INCOMING :</p> <p>One No. 250 amps, 25 ka, 4-pole MCCB complete with adustable overload circuit protection.</p> <p>0-500 Volts 96 x 96 mm square voltmeter digital type with selector switch 1 Set</p> <p>0-50 amps ammeter digital type with 300/5 amps CT's and selector switch 1 Set</p> <p>Phase indicating lamps with control SP MCB.</p> <p>Aluminum bus bar sleeve type rated at 300 amps for three phase & neutral phase bus bar shall have maximum current density of 1.0 amp per sq. mm and the neutral bus bar of not less than 50 % capacity</p> <p>OUTGOING :</p> <p>3 Nos 63 amps, 25 k, TPN MCCB with single phase /overload circuit protection.</p> <p>2 Nos 100 amps, 25 k, TPN MCCB with single phase /overload circuit protection.</p>	1.00	No.	INR		0.00
184	<p>Design, manufacture, supply, installation, testing and commissioning of the following integrated, cubicle type, dead front, extensible, sheet steel control panels, anchoring the panel to the foundation. The panel shall be suitable for 500 volts, 50 cycles, 4 wire supply. (Incommer power supply to AC panel by others).HVAC contractor has to terminate incoming cable to AC panel along with the incoming switch. Quoted price shall include all necessary internal wiring, earthing. Separate compartments for bus bar and cable alleys. The panel shall have minimum 2 spare compartments. The following components and accessories shall be mounted within the control panel. Contractor has to take approval from consultant/ site engineer incharge the SLD drawings for electrical panel before fabrication</p> <p>INCOMING :</p> <p>One No. 200 amps, 25 ka, 4-pole MCCB complete with adustable overload circuit protection.</p> <p>0-500 Volts 96 x 96 mm square voltmeter digital type with selector switch 1 Set</p> <p>0-50 amps ammeter digital type with 250/5 amps CT's and selector switch 1 Set</p> <p>Phase indicating lamps with control SP MCB.</p> <p>Aluminum bus bar sleeve type rated at 250 amps for three phase & neutral phase bus bar shall have maximum current density of 1.0 amp per sq. mm and the neutral bus bar of not less than 50 % capacity</p>	1.00	No.	INR		0.00

185	<p>Design, manufacture, supply, installation, testing and commissioning of the following integrated, cubicle type, dead front, extensible, sheet steel control panels, anchoring the panel to the foundation. The panel shall be suitable for 500 volts, 50 cycles, 4 wire supply. (Incommer power supply to AC panel by others).HVAC contractor has to terminate incoming cable to AC panel along with the incoming switch. Quoted price shall include all necessary internal wiring, earthing. Separate compartments for bus bar and cable alleys. The panel shall have minimum 2 spare compartments. The following components and accessories shall be mounted within the control panel. Contractor has to take approval from consultant/ site engineer incharge the SLD drawings for electrical panel before fabrication</p> <p>INCOMING :</p> <p>One No. 150 amps, 25 ka, 4-pole MCCB complete with adustable overload circuit protection.</p> <p>0-500 Volts 96 x 96 mm square voltmeter digital type with selector switch 1 Set</p> <p>0-50 amps ammeter digital type with 200/5 amps CT's and selector switch 1 Set</p> <p>Phase indicating lamps with control SP MCB.</p> <p>Aluminum bus bar sleeve type rated at 200 amps for three phase & neutral phase bus bar shall have maximum current density of 1.0 amp per sq. mm and the neutral bus bar of not less than 50 % capacity</p> <p>OUTGOING :</p> <p>3 Nos 63 amps, 25 k, TPN MCCB with single phase /overload circuit protection.</p> <p>1 No. 25 amps, 25 k, TPN MCCB with single phase /overload circuit protection.</p>	1.00	No.	INR		0.00
186	Supply and Laying of 2 core x 1.5 sqmm pvc insulated copper conductor communication control cable in Pvc Conduit.	2580.00	RMT	INR		0.00
187	Supply and Laying of 3 core x 2.5 sqmm pvc insulated copper conductor cable for indoor units.	275.00	RMT	INR		0.00
188	Supply and Laying 4.0 core x 6 Sq.mm copper conductor armoured cable	5.00	RMT	INR		0.00
189	Supply and Laying 4.0 core x 10 Sq.mm copper conductor armoured cable	40.00	RMT	INR		0.00
190	Supply and Laying 4.0 core x 16 Sq.mm copper conductor armoured cable	40.00	RMT	INR		0.00
191	Supply and fixing of Perforated type 300 (w)x 100 (d) x1.6 (thickness) Hot dip Galvanised G.I. cable tray With Cover complete with bend/tee joints, coupling plate & nuts bolts etc. as required for fixing complete.	35.00	RMT	INR		0.00
192	Supply and fixing of Perforated type 200 (w)x 100 (d) x1.6 (thickness) Hot dip Galvanised G.I. cable tray With Cover complete with bend/tee joints, coupling plate & nuts bolts etc. as required for fixing complete.	125.00	RMT	INR		0.00
193	<p>Supply, Installation, Testing & Commissioning of armoured 6 core Singlemode OS2 (9/125 Micro), Corrugated ECCS Armor, HDPE (UV) Sheathing, Theoxotropic gel filled OFC cable with 2 Nos steel music wire embedded in side sheathing as strength member for switch connectivity. Cable should be ROHS compliant and as per IEC60749-1 with product warranty of 30 years.</p> <p>Approved Makes: Derwiser/Panduit/Legrand/ Systmax</p>	150.00	Mtr	INR		0.00
194	<p>Supply, Installation, Testing & Commissioning of 6F SM loaded LIU with LC adaptor plates, pigtel cables, Spilce tray, cable holder and 4 nos of cable entry exist point with rubber gurgment along with the LIU, Powder Coated 1.2mm steel sheet metal, 1U etc complete as required. LIU should be in accordance with YD/T 778-2006 Optical Distribution Frame & YD/T 1272.1-2003 Optical Fiber Connector Part 1: Type LC and should have 30 years of product warranty.</p> <p>Approved Makes: Derwiser/Panduit/Legrand/ Systmax</p>	5.00	Nos.	INR		0.00

195	Supply, Installation, Testing & Commissioning of 24F SM loaded LIU with LC adaptor plates, pigtail cables, Splice tray, cable holder and 4 nos of cable entry exist point with rubber gument along with the LIU, Powder Coated 1.2mm steel sheet metal, 1U etc complete as required. LIU should be in accordance with YD/T 778-2006 Optical Distribution Frame & YD/T 1272.1-2003 Optical Fiber Connector Part 1: Type LC and should have 30 years of product warranty. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	2.00	Nos.	INR		0.00
196	Supply, Installation, Testing & Commissioning of LC-LC singlemode OS2 (9/125) duplex, LSZH fiber patch cord for LIU to switch connectivity. Patch Cord should have aramid yarn as strenght member with 1000 time mating cycle. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	60.00	Nos.	INR		0.00
197	Supply, Installation, Testing & Commissioning of CAT 6A UTP LSZH Cable, 23 AWG solid copper conductors in accordance to TIA/EIA 568 C.2 (Category 6a) & ISO/IEC 11801 2nd ed(Class Ea), UL Approved, tested @500 Mhz, with HDPE insulation of individual conductor and over all Dia of 7.2 mm for Connectivity of Hub room to End Point. Grey Color Approved Makes: Derwiser/Panduit/Legrand/ Systmax	45000.00	Mtr	INR		0.00
198	Supply, Installation, Testing & Commissioning of CAT 6A UTP Universal (both tool & toolless) information outlet (I/O) in accordance with ANSI TIA 568 C.2, IEC 60603-7-4 2nd Edition, ISO/IEC TR 11801-9901-2014, ROHS Compliant. The I/O should have minimu 750 mating cycle and 200 insertion cycle and UL approved,for Data, Voice, & Wi-Fi at user end. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	700.00	Nos.	INR		0.00
199	Supply, Installation, Testing & Commissioning of loaded 24 port CAT 6A UTP, Transparent shutter jack panel, 1U height, UL-94V-0, Black with cable support bar, clear label marks and earthing plug for CAT6A cable termination at rack end. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	34.00	Nos.	INR		0.00
200	Supply, Installation, Testing & Commissioning of CAT 6A UTP, LSZH Patch Cord as per ANSI/TIA/EIA 568C.2 and UL 94-V-0, ROHS Compliant, patch cord 1 Mtr for rack side switch to jack panel connectivity. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	700.00	Nos.	INR		0.00
201	Supply, Installation, Testing & Commissioning of CAT 6A UTP, LSZH Patch Cord as per ANSI/TIA/EIA 568C.2 and UL 94-V-0, ROHS Compliant, patch cord 2 Mtr for rack side switch to end user connectivity. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	700.00	Nos.	INR		0.00
202	Supply, Installation, Testing & Commissioning of 1, 2 and 4 port face plate, British Style with Shutter, 2 Plate system clear finish with transparent labelling, ABS-UL94-V2, ROHS Compliant, in accorandce with standards like ANSI/TIA-568-C.2, ISO/IEC 11801:2002 AMMD.2:2010, YD/T 926.3-2009 & ISO/IEC 60603-7 white for I/O fixing at user side. Approved Makes: Derwiser/Panduit/Legrand/ Systmax	700.00	Nos.	INR		0.00
203	Supply, Installation, Testing & Commissioning of 42 U (600W/1000D) floor mount rack with fans , 2 cable managers , satationary shelf , 2 Nos. of hardware pkts. Approved Makes: Derwiser/MTS/Rittal/APC/APW	1.00	Nos.	INR		0.00
204	Supply, Installation, Testing & Commissioning of 36 U floor mount rack with fans , 2 cable managers , satationary shelf , 2 Nos. of hardware pkts. Approved Makes: Derwiser/MTS/Rittal/APC/APW	5.00	Nos.	INR		0.00
205	Supply, Installation, Testing & Commissioning of Weather Proof Outdoor Enclosure suitable for LIU ,PDU & Switches. Approved Makes:Derwiser/MTS/Rittal/Nexus/APW	2.00	Nos.	INR		0.00
206	Supply, Installation, Testing & Commissioning of 4 or 6 Meter G.I Pole with foundation complete as required. Approved Makes: Mayfair/Twinkle/Kasper/Bajaj /crompton or Equivalent	4.00	Nos.	INR		0.00

207	Supply, Installation, Testing & Commissioning of Pure IP at core server Based voice solution with 08 Port Voicemail, 08 Port FXS, 08 Port FXO, 2 PRI Trunk lines (30 Ch) Circuit with CLIP Facility, 336 IP users License, 01 Nos. IP Operator Console, 100 Party Conference, Speed Dial, Music on Hold, Internal/ External ring difference, Call Barring, Call Pickup, TEC should be with GR Number, - Should Support Redundant server in active-Active mode. Approved Makes: Tadiran/Arista /Polycom/Toshiba/ Aeonix	1.00	Set.	INR		0.00
208	Supply, Installation, Testing & Commissioning of Type 1 IP Phone 1 VoIP account, Full duplex speaker phone, IPV6, 2xLAN, PoE. Approved Makes: Tadiran/Arista /Polycom/Toshiba/ Aeonix	300.00	Nos.	INR		0.00
209	Supply, Installation, Testing & Commissioning of Type 2 IP Phone with 2 Voip accounts, 2 Lines, HD Voice, Graphic LCD display with backligh. Approved Makes: Tadiran/Arista /Polycom/Toshiba/ Aeonix	36.00	Nos.	INR		0.00
210	Supply, Installation, Testing & Commissioning of Core Switch with switching capacity of 800Gbps, forwarding performance of 600Mpps with 24x 1/10G SFP+ ports expandable to 32 SFP+ ports with 4x 40G QSFP+ ports from day 1, dual hot swappable internal power supply, 64K IPv4 and IPv6 Routes and 30K multicast routes. Should support advance layer 3 (RIPng, OSPF, BGP and MPLS) with 1 year support. Approved make - Cisco / Juniper / Impulse / Nexxus/Arista	1.00	Nos.	INR		0.00
211	Supply, Installation, Testing & Commissioning of Access Switch 24 Port POE+ Access Switches with switching capacity of 128 Gbps, forwarding performance 95 Mpps, having 24 x 10/100/1000BASE-T PoE-plus(RJ45) with minimum PoE budget of 370W and 4 x 10G SFP+ uplink ports, should have support for 9 switch Stacking with bandwidth of minimum 120 Gbps. Should support min 2GB internal DRAM, 2GB internal Flash memory, 32K MAC address, 4k Multicast Routes, Should have static Routing from day 1 and upgradable to support OSPF and VRRP with 1 year support. Approved make - Cisco / Juniper / Impulse / Nexxus/Arista	34.00	Nos.	INR		0.00
212	Supply, Installation, Testing & Commissioning of fiber Modules 10BASE Approved Make :Cisco / Juniper / Impulse / Nexxus/Arista	24.00	Nos.	INR		0.00
213	Supply, Installation, Testing & Commissioning of Appliance based customised ITAM for asset inventory management with ability to map physical locations and exact rack elevations for audit and support control. Appliance shall be Intel x86 based device with secure intranet server with Linux Based operating system and relational databases for long term storage. Appliance includes license for 100 units under control. Approved Makes:F5/ Palo-alto / Juniper / Nexxus/Arista	1.00	Nos.	INR		0.00
214	Supply, Installation, Testing & Commissioning of the Microservices based WLAN Architecture. The indoor AP should have radios to support 2.4Ghz and 5 Ghz band in a 4X4:4 Mu-MIMO configuration with support for 802.11 a/b/g/n/ac. The AP should have internal Omni Antennas and should support vBLE and RF optimization. It should also support way finding and asset tracking via bluetooth.Should support Artificial Intelligence platform, WIPS/WIDS to detect Rogue APs and the facility to terminate connection to the Rogue APs.Plenum rated and support for UL 60950-1 CAN/CSAC22.2 No. 60950-1, FCC Part 15.247, 15.407, 15.107, and 15.109 RSS247 ICES003 Approved Make : Cisco / Juniper / Impulse / Nexxus/Arista	20.00	Nos.	INR		0.00

215	Supply, installation, testing and commissioning of 5 MP Dome camera , ONVIF profile S , G& T , UL , CE , FCC Certified ,1/2.8" Progressive Scan CMOS ,2.7 mm to 12 mm motorized varifocal lens , Quad stream with each stream support H.265+ compression simultaneously ,min illumination : 0.01 Lux @ (F1.2,AGC ON), 0 Lux with IR , Shutter speed : 1 / 5s ~ 1 / 100,000 s ,120 dB WDR , Compression : H.265+ ,H.265 ,H.264+ H.264 .SD card support upto 128GB , Alarm trigger - 1 input / 1 output , frame rate : Main stream should support 25 fps@5MP ,Edge analytics : line crossing , perimeter intrusion ,Face detection(deep learning) , pedestrian detection ,cross counting , stationary object , In built IR LED , IR Distance upto 40 meters , IP 67 , IK10 ,POE. Approved Makes : Allgovision/ Impulse / Avigilon / Cisco/ Axis	51.00	Nos.	INR		0.00
216	Supply, installation, testing and commissioning of 5 MP Bullet camera , ONVIF profile S ,G & T . UL , CE , FCC Certified ,1/2.8" Progressive Scan CMOS ,2.7 mm to 12 mm motorized varifocal lens , Quad stream with each stream support H.265+ compression simultaneously ,min illumination : 0.01 Lux @ (F1.2,AGC ON), 0 Lux with IR , Shutter speed : 1 / 5s ~ 1 / 100,000 s ,120 dB WDR , Compression : H.265+ ,H.265 ,H.264+ H.264 .SD card support , Alarm trigger - 1 input / 1 output , frame rate : Main stream should support 25 fps@5MP , Edge analytics : line crossing , perimeter intrusion ,Face detection (deep learning) , pedestrian detection ,cross counting , stationary object , In built IR LED , IR Distance upto 50 meters , IP 67 , IK 10 housing , POE. Approved Makes : Allgovision/ Impulse / Avigilon / Cisco/ Axis	8.00	Nos.	INR		0.00
217	Supply, installation, testing and commissioning of 3 MP PTZ Camera , UL,CE,FCC Certified , ONVIF profile s , triple stream or more,4.3 to 129mm focal length , 30 X Optical Zoom , 12 X digital Zoom ,Frame rate : 25 fps @ 3MP ,50 fps @ 2 MP (main stream) ,Shutter Speed : 1/3 - 1/10,000 s , inbuilt IR LED for night vision ,triple stream or more, IR distance upto 100 mtr or more ,upto 20 privacy masking , 2D / 3D noise reduction ,120 dB WDR , 360 deg endess pan , tilt -15 to 90 deg , auto flip support ,80 presets ,Auto pan ,Edge analytics : Intrusion detection , tamper detection , loitering , abandoned object , SD Card support , Auto white balance, Auto iris , Alarm : 2 IN , 1 Out , IP 66 weather proof , Power : 24V AC/ POE+ / POE. Approved Makes :Allgovision/ Impulse / Avigilon / Cisco/ Axis	5.00	Nos.	INR		0.00
218	Supply, installation, testing and commissioning of 64 channel NVR , ONVIF compliant , recording bandwidth 640 Mbps , output interface 1 HDMI (up to 4K), 1 VGA , Alarm in/out :16ch in / 4ch out , 1 X RJ45 ethernet , iOS smartphone support , 8 HDD support , each HDD slot support upto 8 TB HDD , RAID support , 1x3.0 USB for backup /upgrade , 2x 2.0 USB for mouse .Edge analytics of poposed cameras must be integrated with NVR . Artificial Intelligence Support having face recognition with compatible deep learning supported cameras, AI-Face registered quantity upto 10,000 ,A.I maximum captured quantity 200,000. . UL,CE,FCC certified. Approved Makes : Allgovision/ Impulse / Avigilon / Cisco/ Axis	1.00	Nos.	INR		0.00
219	Supply, Installation, Testing & Commissioning of 8TB Surviellance Hard Disk. Approved Makes: WD /seagate /Toshiba/HP	8.00	Nos.	INR		0.00
220	Supply, Installation, Testing and Commissioning of Full HD 55" LED Professional Display Panel. Approved Makes: Panasonic / LG/ Sony/ Samsung	2.00	Nos.	INR		0.00

221	Supply, Installation, Testing and Commissioning of 24 port L2 Managed switch having port density 24 Nos. of 10M/100M/1G RJ45 Port POE/POE+ ports , 4 Nos. of 1G/10G SFP+ Port , 1X console port , Available POE power 370 W , 128 Gbps switching bandwidth , 32K MAC address support , Support L2 feature STP, RSTP ,MSTP . Support 802.1Q VLAN , port based VLAN , 4K VLAN entries , MAC based VLAN , IP subnet based VLAN . Support IEEE 802.3ad LACP . L3 features - static routing , DHCP server , Device Management system - topology view , floor view , map view , dashboard , traffic monitoring , cable diagnostics.CE,FCC certified Approved Make :Cisco/ Impulse / Juniper / Nexus	3.00	Nos.	INR		0.00
222	Supply, Installation, Testing and Commissioning of Industrial grade switch 4 x 10/100/1000Base-T Ports POE + 2 x Gigabit SFP Slots + 1 Console Port , Available POE power 120W , 8K MAC address table , Ring recover time < 20 ms , Support STP,RSTP , MST, 802.1Q VLAN , Support telnet , SSH , MAC-Based VLAN , IP Subnet based VLAN , Device management : topology View , Floor View , Map View , traffic monitoring , Cable diagnostics , UL,CE,FCC Certified , IP 40 protection , DIN rail for wall mount , Operating temperature -40°C to 75°C , Storage Temperature -40°C to 85°C , Humidity 5 to 95% RH , Dual DC Input - 48 ~ 57 VDC . Approved Make :Cisco/ Impulse / Juniper / Nexus	5.00	Nos.	INR		0.00
223	Supply, Installation, Testing and Commissioning of Workstation PC: Intel(R) Core(TM) i7-3770 Processor (8M Cache, up to 3.90 GHz); RAM: 8GB (1x8GB) Non-ECC DDR3 1600MHz ; Keyboard: 12 function keys; Chassis: Tower/Workstation; DVD: 8X Slimline DVD+/-RW, Data Only; Dual Graphics Card; Network interface card: Integrated Intel(R) 82579LM Gigabit1 Ethernet LAN 10/100/1000; Hard disk: 250GB, 7200 RPM 3.5" SATA 6Gb/s Hard Drive; Operating system: Windows 7 Professional 64 Bit or latest. Approved Makes: HP / DELL / IBM / LENOVO	1.00	Nos.	INR		0.00
224	High Voltage- size 250mm x 200mm Providing & fixing danger plates made of mild steel at least 2mm thick & vitreous enameled white on both sides & with inscriptions in signal red colour on front side as read.	10.00	Each	INR		0.00
225	Medium Voltage – size 200mm x 150mm Providing & fixing danger plates made of mild steel at least 2mm thick & vitreous enameled white on both sides & with inscriptions in signal red colour on front side as read.	10.00	Each	INR		0.00
226	Provide and fixing Carbon di-oxide (CO2) type fire extinguishers confirming to IS2878: 1976 and cylinders fully charged of 4.5KG	5.00	Each	INR		0.00
227	Supply and fixing of foam fire extinguishers, Portable type 9 lit capacity hanged on wall with bracket complete as required.	5.00	Each	INR		0.00
228	Supply of safety instruction chart in word duly framed with 5mm thick glass as required. (approx. Front area 1.20 sq. mt.)	2.00	Each	INR		0.00
229	Providing of set of 4 Nos. 9.5 Litre capacity GI bucket painted in post office red colour with prior coat of red oxide paint and written with white paint 'FIRE' and mounted on MS angle iron frame with bracket of appropriate size & capacity I/c filling sand etc.	2.00	Set.	INR		0.00
230	Providing First Aid Box as approved by St. John Ambulance Brigade/Indian Red Cross conforming to IS 2217-1963 as amended upto date.	2.00	Each	INR		0.00
231	Supply & fixing shock treatment chart both in Hindi and English and with local language for treating person suffering due to electric shock.Mounted on wall.It should be in a wooden frame with 5mm thick glass, complete as reqd. (approximate front area 1.20sq. metre)	2.00	Each	INR		0.00
232	Providing of rubber mat 1 mtr. Wide and 12mm thick to withstand 45KV dielectric strength as per IS 5424-1969 as amended upto date.	20.00	mtrs	INR		0.00

233	<p>Supply ,Installation ,Testing & Commissioning of 2 Door 2 reader access control panel with onboard 32 Bit RISC ARM CPU, 8MB flash memory, shall support up to 100000 card user, 400000 event transactions, TCP/IP, the panel should have inbuilt 4 GB SD memory card to take mirror image of device configuration. data shall support standard Wiegand readers, Access Control panel should have MODBUS connectivity to integrate the panel with BMS (Building Management System), with metal enclosure & inbuilt power supply, facility of din-rail mounting should available. capable to integrate with IP/CCTV & NVR for access event alerts, Inbuilt door interlocking facility, SNMP alerts facility, Low battery and AC fail alert facility & reader Tamper detection alert facility should available.</p> <p>Approved Makes :Cardex / Lenel /Amplink/Nexus</p>	7.00	Nos.	INR		0.00
234	<p>Supply, Installation , testing and commissioning of 12 V SMPS DC Power Supply Unit, highly regulated and spikes free terminal voltage and heavy sourcing current for regulated terminal voltage.</p> <p>Approved Makes :Cardex / Lenel /Amplink/Nexus</p>	7.00	Nos.	INR		0.00
235	<p>Supply & Installation of Cloud Compatible enterprise level Web based Modular Access Management and Time Attendance software with SQL Database and support up to desired number of users. Single GUI Plateform with complete modular software with provision to integrate with different application ie; Access Control, VMS, Alarm Management, etc. Employee Self Service - login module for Employee/HOD/MANAGER where they can view their attendance; they can apply for leave/manual punch/tour entry/outdoor entry though internet with their login ID & password. Same way manager can online approve all application sent by employee. Comprehensive Email and SMS module for to send various SMS & Email on the base of different events in Access Control & Time Attendance system. It should support Multi company, multi location, multi department, multi login with different rights, muti hierarchy of employee, Should support maker & checker facility - the local administrator should able to add the users but he should not able to authenticate/approve the User, Approval right of the added user should be with main Administrator. Dedicated output reports for Payroll integration, Duress Authentications, Email & SMS can be sent on every configured event ie; Leave Application/approval, Manual Punch Application/Approval,Outdoor Application/Approval, Tour Application/Approval, Condone Application/Approval . Holiday restriction (Reader Wise), Device Configuration – Push/Pull, Dual Authentications, Easy Employee tracking as outdoor Employee Attendance should marked with their GPS Location, Employee can mark Offline attendance (If No Network) through Android Mobile App.</p> <p>Approved Makes :Cardex / Lenel /Amplink/Nexus</p>	1.00	Job	INR		0.00
236	<p>Supply ,Installation ,Testing & Commissioning of Mifare smart Card Reader Technical Specs.</p> <p>Approved Makes :Cardex / Lenel /Amplink/Nexus</p>	7.00	Nos.	INR		0.00
237	<p>Supply ,Installation ,Testing & Commissioning of Mifare Smart Card Contactless transmission of data and supply energy (No battery needed), Operating Distance: Upto 100mm (Depending on Antenna Geometry), Operating Frequency: 13.56 MHZ. Fast Data Transfer: 106 Kbit/s High Data Integrity: 16 Bit CRC, parity, bit coding, bit counting. 1 Kbyte, organized in 16 sectors with 4 blocks of 16bytes each (one block consists of 16 byte), User definable access conditions for each memory block. Data retention of 10 years. Mutual three pass authentication (ISO/IEC DIS9798-2), Data encryption on RF-Channel with replay attack protection. Individual set of two keys per sector (per application) to support multi-application with key hierarchy. Unique serial number for each device. Transport key protects access to EEPROM on chip delivery.</p> <p>Approved Makes :Cardex / Lenel /Amplink/Nexus</p>	70.00	Nos.	INR		0.00

238	Supply ,Installation ,Testing & Commissioning of Electromagnetic Lock 600 lbs, Single leaf, LED Status Display, Approved Makes :Assa Abloy / Ablesco / BEL	7.00	Nos.	INR		0.00
239	Supply , Installation , Testing and commissioning of CAT 6 UTP cable 23 AWG solid copper conductors. Approved Makes: Belden / Siemon / Panduit / Leviton / Molex	315.00	Nos.	INR		0.00
240	Supply and Laying of 8 Core x 1.0 sq mm multi strand, copper, unarmoured shielded Cable as per specification (between the every card readers & the access controllers) Approved Makes : Polycab / RRRKable / CMI / Paramount	245.00	RM	INR		0.00
241	Supply ,Installation ,Testing & Commissioning of U/L Clamp made of aluminium anodised for EM Lock. Approved Makes :Assa Abloy / Ablesco / BEL	7.00	Nos.	INR		0.00
242	Supply , Installation , Testing and commissioning of Exit push button as required. Approved Makes :Cardex / Lenel /Amplink/Nexus	7.00	Nos.	INR		0.00
243	Supply & laying of Supply and drawing of 2 C X 1.5 Sq mm multi stranded twisted unshielded FRLS Copper cable for Access control system. Approved Makes : Polycab / RR Kabel / Paramount / Parasheild	245.00	RM	INR		0.00
244	Supply and Fixing of 25 mm dia MS Conduit. Approved Makes : AKG / BEC / MK	221.00	RM	INR		0.00
245	SITC of 82" Display 4K Mainstream Professional Display for AVSI & Digital Signage Projects with HDMI / DVI / RS232 / USB / RJ45 / Wi-Fi Ready / Built-in-Speakers /3 Bezel Less / 5000:1 contrast 120Hz Inbuilt Media Player Approved Makes: Samsung / Allsee / Barco / Panasonic	6.00	Nos.	INR		0.00
246	SITC of 65" 4K Mainstream Professional Display for AVSI & Digital Signage Projects with HDMI / DVI / RS232 / USB / RJ45 / Wi-Fi + Bluetooth / Built-in-Speakers /EDGE LED/ HDR+ Functionality/ Tizen 4.0 with Inbuilt Media Player Approved Makes: Samsung / Allsee / Barco / Panasonic	6.00	Nos.	INR		0.00
247	SITC of 55" Mainstream Professional Display for AVSI & Digital Signage Projects with Full HD Resolution / 2xHDMI / USB / DVI / VGA / RS232 & RJ45 / Built-in-Speakers / Inbuilt Media Player Approved Makes: Samsung / Allsee / Barco / Panasonic	7.00	Nos.	INR		0.00
248	SITC of 43" Mainstream Professional Display for AVSI & Digital Signage Projects with Full HD Resolution / 2xHDMI / USB / DVI / RS232 & RJ45 / Built-in-Speakers / Inbuilt Media Player Approved Makes: Samsung / Allsee / Barco / Panasonic	2.00	Nos.	INR		0.00
249	SITC of Cable Manager, table mount modular multi-Connection Solution with retractable Lid with cable pass through for 1 HDMI, 1 VGA with audio, 1 LAN, 2 Universal AC Power Outlet & 2 USB charging outlets, Certification: CE, ISO 9001, ISO 14001, etc. Approved Makes: Extron/ Kramer/ Lightware	36.00	Nos.	INR		0.00
250	SITC of HDMI & VGA Transmitter over Cat6 (HDBaseT) upto 100 meters with Inputs 2 HDMI, 1 VGA with Audio, 1 Cat6 (HDBaseT) Output, 2K and 4K support, HDTV Compatible, HDCP Compliant with RS-232 & Ethernet port, under table mount of same OEM etc complete as required. Approved Makes: Extron/ Kramer/ Lightware	15.00	Nos.	INR		0.00
251	SITC of HDMI Transmitter over Cat 6 (HDBaseT) up to 70m with Input 1 HDMI, 1 Cat6 (HDBaseT) Output, 2K and 4K support, HDTV Compatible, HDCP 2.2 Compliant with IR and RS-232 etc complete as required. Approved Makes: Extron/ Kramer/ Lightware	6.00	Nos.	INR		0.00

252	SITC of HDMI Receiver over Cat 6 (HDBaseT) up to 70m with Inputs 1 Cat6 (HDBaseT), 1 HDMI Output, 2K and 4K support, HDTV Compatible, HDCP 2.2 Compliant with IR and RS-232 etc complete as required. Approved Makes: Extron/ Kramer/ Lightware	12.00	Nos.	INR		0.00
253	SITC of 4K 8X4 Matrix Switcher, 6 HDMI, 2 Cat6 (HDBaseT) inputs , 2 HDMI & 2 Cat6 (HDBaseT) Output, audio embedding for each of the 8 video inputs & 2 de-embedded analog audio, Signal extension over Cat6 (HDBaseT) up to 100m at 4K @60Hz (4:2:0) 2K and 4K support, HDTV Compatible, HDCP Compliant, Audio Breakaway & AFV Support, 8 Mic inputs, PoE (Power over Ethernet) Provider, 4 (2+2) USB: On female USB–A connectors for USB Link Extension, inbuilt control system with 4 RS232, 4 IR, 4 Relay, 4 GPIO control ports, Controllable through Ethernet and RS-232, Safety compliance: CE, UL, Environmental compliance: Environmental: RoHs, WEEE, etc complete as required. Approved Makes: Extron/ Kramer/ Lightware	3.00	Nos.	INR		0.00
254	SITC of 4K Presentation Matrix Switcher Cum Scaler, 4 HDMI, 2 DVI Universal (can be used for VGA or HDMI or DVI signal) with Audio & 2 Cat6 (HDBaseT) inputs with embedded audio, 2 HDMI & 2 Cat6 (HDBaseT) Output with de-embedded analog audio, 2K and 4K support, HDTV Compatible, HDCP Compliant, Automatic Switching, Audio Breakaway & AFV Support, DSP features, 2 Mic unbalanced and high impedance on 6mm jack connectors (with selectable 48V phantom power), 1 S/PDIF digital audio on an RCA connector, Controllable through Ethernet and RS-232, OSD, IR remote control, Certifications : CE, ISO 9001, ISO 14001, OHSAS 18001. etc complete as required. Approved Makes: Extron/ Kramer/ Lightware	3.00	Nos.	INR		0.00
255	SITC of Control System should be equipped with at least 4 bidirectional RS-232 serial ports, at least 4 IR ports, at least 4 Digital I/O ports, at least 4 low voltage relays for controlling room functions, at least 1 Ethernet monitoring and control port, Rack mounting, etc. Approved Makes: Extron/ Kramer/ Lightware	6.00	Nos.	INR		0.00
256	SITC of 7 inch IPS color screen Touch panel, screen resolution 1280 X 800, brightness 350cd/m2, contrast ratio 800:1, 16:10 aspect ratio, Wi-Fi connectivity, Ethernet Communication RJ45 port, inbuilt speaker & mic, etc. Should be supplied with table mount as well as wall mount kit.Should have appropriate app, etc. Approved Makes: Extron/ Kramer/ Lightware	6.00	Nos.	INR		0.00
257	SITC of Wireless presentation & collaboration devices supports video resolution upto 4K@60, with HDMI Input & output, 1 Ethernet port, 3 USB port for connecting keyboard, mouse, etc, Supports iOS, Windows and Android operating systems, display minimum 4 users screen at a time, Supports DHCP, connect 100 participants simultaneously, wireless streaming of 4k video at 60 frame per second (FPS), supports whiteboard, annotaion from users devices, content can be viewed on users Smartphone/MacBook/Windows PC, inbuilt App for soft VC via Zoom, Microsoft Teams, etc. Approved Makes: Extron/ Kramer/ Lightware	15.00	Nos.	INR		0.00

258	<p>SITC of 4K video conference system capable of IP dialling and Open UC Mode to be used with any video collaboration application.</p> <p>The system should be of resolution 3840 x 2160 progressive scanning up to 30 frames per second from day one</p> <p>The system should be able to do Presentation data sharing up to 3840x2160p30</p> <p>The system should have Bitrates and resolutions (H.264 High Profile)</p> <p>The System should have HD Speaker phone, with inbuilt microphones and touch screen for ease of use from same OEM</p> <p>The video conference system shall support both H.323 and SIP</p> <ul style="list-style-type: none"> The system shall support both Hardware and Software based option to connect any web based application like MS Teams, Zoom, WebEx, Go to Meeting, Google meet etc.. which invite is being received from vendor / client The User should be able to access the Video Conference hardware as a webcam and speakerphone to cover video and audio of entire room space using both USB and Wireless pairing to user's laptop / desktop <p>Dual Display Support (4K UHD)</p> <p>The System should also support Single display mode where Video and presentation both come on same display</p> <p>The Camera should be 4K UHD Camera</p> <p>The Camera should have 5x Zoom</p> <p>The Camera should have Diagonal field of view: 97 degrees or better</p> <p>The Camera should have Horizontal field of view: 88 degrees or better</p> <p>The Camera should have Vertical field of view: 56 degrees or better</p> <p>The Camera should have Auto Exposure/Auto Focus/Auto White Balance</p> <p>The Camera should have pre-sets Min 10 or higher</p> <p>The System should have 1 x HD Video In (up to 3840x2160p30) HDMI enabled</p> <p>The System should have 2 x HD Video Out (up to 3840x2160p30) HDMI enabled</p> <p>The System should have integrated Touch Screen Display with Built in Mic and Speakers from same OEM</p> <p>The Integrated device should be Powered directly through POE LAN port from Codec - no sperate power</p>	3.00	Nos.	INR		0.00
259	<p>SITC of 2 Years essential Services from OEM for the VC Setup</p> <p>Approved Makes: Lifesize / Panasonic / Cisco</p>	6.00	Nos.	INR		0.00
260	<p>SITC of Wi-Fi router, 4 LAN ports, 1 Gbps bandwidth, with power adaptor.</p> <p>Approved Makes: D-Link/Netgear/TP Link</p>	6.00	Nos.	INR		0.00
261	<p>SITC of Chairman unit Frequency response 200 Hz to 12.5 kHz, Headphones load impedance > 32 ohms < 1k ohm, Loudspeaker nominal output 72 dB SPL, Mechanical Dimensions device without microphone (H x W x D) 64 x 203 x 146 mm (2.5 x 8.0 x 5.7 in), Height with microphone in horizontal position 130 mm (5.1 in), Length of microphone from mounting surface CCSD -DL: 480 mm (18.9 in)</p> <p>Approved Makes: Televic / Beyerdynamic / Sennheiser</p>	6.00	Nos.	INR		0.00
262	<p>SITC of Delegate unit Frequency response 200 Hz to 12.5 kHz, Headphones load impedance > 32 ohms < 1k ohm, Loudspeaker nominal output 72 dB SPL, Mechanical Dimensions device without microphone (H x W x D) 64 x 203 x 146 mm (2.5 x 8.0 x 5.7 in), Height with microphone in horizontal position 130 mm (5.1 in), Length of microphone from mounting surface CCSD -DL: 480 mm (18.9 in)</p> <p>Approved Makes: Televic / Beyerdynamic / Sennheiser</p>	78.00	Nos.	INR		0.00

263	SITC of Control Unit allows Discussion Devices and system cameras to be conveniently connected to and removed from the system as required Mains voltage 100 to 240 VAC \pm 10% ,Current consumption Maximum 0.6 A (100 VAC) to 0.2 A (240 VAC),DC supply to Discussion Devices 24 V \pm 1 V (current limited) ,Number of Discussion Devices per Control UnitMax. 40 devices per trunk connector, Discussion Device Loudspeakers volume control ,15 steps of 1.5 dB (starting from -10.5 dB) ,Limit threshold level to unit 12 dB above nominal level Approved Makes: Televic / Beyerdynamic / Sennheiser	6.00	Nos.	INR		0.00
264	SITC of Connecting cable, RJ45 connectors, length 20 m (65 ft.) Approved Makes: Televic / Beyerdynamic / Sennheiser	12.00	Nos.	INR		0.00
265	SITC of Connecting cable, RJ45 connectors, length 2.5 m (8 ft.) Approved Makes: Televic / Beyerdynamic / Sennheiser	84.00	Nos.	INR		0.00
266	SITC of Wireless Handheld Mic UHF diversity system, with single receiver and dynamic handheld with cardioid capsule, pilot tone, scan function, incl. power supply,microphone clamp and batteries Approved Makes: Shure / Beyerdynamic / Sennheiser	12.00	Nos.	INR		0.00
267	SITC of digital signal Processor for Audio with 12 mono analog inputs and 8 mono analog line level outputs for audio signal routing and management. DSP Should feature acoustic echo cancellation for minimum 12 inputs, Phantom power on minimum 8 input, digital audio expansion port, Automixer function with eight groups, 64-bit floating point DSP engine, USB audio interface. Should have minimum 8 Digital IO port for look at me integration. Safety compliances: CE, c-UL, and UL. COntrol: Ethernet/RS232 Approved Makes: Extron / Biamp / Clear One	6.00	Nos.	INR		0.00
268	SITC of 240W Power Amplifier, 2 x 120W @ 4/8 Ω , 1 x 240W @ 70V/100V, Line-level output, 2 Inputs with individual gain, Selectable high-pass filter, Auto standby, Over current and overheat protection, Built-in DSP, Controllable via RS-232 and IP, etc. Approved Makes: Extron/ Kramer/ Bose	6.00	mtrs	INR		0.00
269	SITC of 6.5-Inch, 2-Way Closed-Back Ceiling Speakers, Woofer — 6.5" polypropylene cone, Tweeter — 0.5" Mylar dome, Impedance — 8 Ω , Power Handling — 30W RMS, 80W Continuous, Transformer Taps — 70/100V, Transformer Taps — 70V: 30W/15W/7.5W/3.7W/Off (Lo-Z); 100V: 30W/15W/7.5W/Off (Lo-Z)., Min. SPL: Continuous: 100.7dB, peak: 103.7dB, Sensitivity: 87dB SPL, 1W @1m, Certification: UL 1480 & 2043 Listed. Approved Makes: Extron/ Kramer/ Bose	42.00	mtrs	INR		0.00
270	SITC of 3.0 Metres HDMI patch cord in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	15.00	mtrs	INR		0.00
271	SITC of 3.0 Metres VGA with Audio patch cord in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	15.00	Nos.	INR		0.00
272	SITC of 1.8Metres HDMI patch cord in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	69.00	Nos.	INR		0.00
273	SITC of 10.7Metres HDMI patch cord in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	15.00	Nos.	INR		0.00
274	SITC of 1.8 Meters 4K HDMI to DVI patch cord in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	6.00	Nos.	INR		0.00
275	SITC of 15.2 Meters 4K HDMI patch cord in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	15.00	Nos.	INR		0.00

276	SITC of HDBaseT recommended 23 AWG shielded CAT6A Cable with appropriate connectors in existing conduit. Approved Makes: Extron/ Kramer/ Lightware	300.00	Nos.	INR		0.00
277	SITC of 2 Core 20 AWG routing balanced mono or unbalanced stereo mic or line level audio signals or Control signals cable in existing conduit. (In Meters) Approved Makes: Extron/ Kramer/ Lightware	1350.00	mtrs	INR		0.00
278	SITC of 16 AWG 2 Core Speaker cable in existing conduit. (In Meters) Approved Makes: Extron/ Kramer/ Lightware	750.00	mtrs	INR		0.00
279	Supply and Laying of HDBaseT recommended 23 AWG shielded CAT6A Cable with appropriate connectors in existing conduit. (In Meters) Approved Makes: Extron/ Kramer/ Lightware	615.00	mtrs	INR		0.00
280	SITC of sheilded connector for 23 AWG shielded CAT6A Cable. Approved Makes: Extron/ Kramer/ Lightware	54.00	Nos.	INR		0.00
281	SITC of Various cables & Connectors Approved Makes: Extron/ Kramer/ Lightware	36.00	Nos.	INR		0.00
282	SITC of Rack Structure 32 U Air Cooled AV Equipment Rack with Two Nos. of Vertical Power Strips, Cantilever Selves, Cable routing perforations, 4 No. of Spin Wheels Approved Makes: Custom	3.00	Nos.	INR		0.00
283	SITC of Rack Structure 24 U Air Cooled AV Equipment Rack with Two Nos. of Vertical Power Strips, Cantilever Selves, Cable routing perforations, 4 No. of Spin Wheels Approved Makes: Custom	3.00	Nos.	INR		0.00
284	SITC OF 7.4Kw AC wallbox type 2, cable 5m, single phase/32A, with RFID, Bluetooth, ethernet, WIFI connectivity	4.00	Nos.	INR		0.00
285	2Pole, Type A, 40A, 30Ma RCBO	4.00	Nos.	INR		0.00
286	6sqmm Cu Cable 3 Core	300.00	mtrs	INR		0.00
Group D: FIREFIGHTING WORKS		X			Y	Z = X*Y
1	Supplying, installation, testing and commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required : (a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520 (b) Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325. (c) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. (d) Suitable cement concrete foundation duly plastered with anti vibration pads. 2850 lpm at 88 m Head	2.00	Set	INR		0.00

2	<p>Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Diesel Driven Pump) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required. M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. 2850 lpm at 88 m Head</p>	1.00	Set	INR		0.00
3	<p>Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520. Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325. M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads. 180 lpm at 88 m Head</p>	2.00	Set	INR		0.00
4	<p>Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump) (a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520 (b) Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325. (c) M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required. (d) Suitable cement concrete foundation duly plastered and with anti vibration pads. 900 lpm at 35 m Head</p>	2.00	Set	INR		0.00

5	<p>Fabrication, supply, installation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :</p> <p>Incomings 630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector switch & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 800Amps</p> <p>Outgoings (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) Main Fire Pump 200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets Jockey Pump 100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets Diesel Engine Control Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers, Sensors</p>	1.00	Set	INR		0.00
6	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	3.00	Set	INR		0.00
7	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :	9.00	Set	INR		0.00
8	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS:12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket. 40 m	14.00	Set	INR		0.00
9	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required : Gun metal	14.00	Nos.	INR		0.00

10	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required : Gun metal	14.00	Nos.	INR		0.00
11	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : Pendent Sprinkler	738.00	Each	INR		0.00
12	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories : Upright Sprinkler	163.00	Each	INR		0.00
13	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of follwing sizes as required : 100mm dia	1.00	Set	INR		0.00
14	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required. 100mm dia	6.00	Each	INR		0.00
15	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	6.00	Each	INR		0.00
16	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : 4 way - 150 mm dia M.S. Pipe	2.00	Set	INR		0.00
17	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required : 3 way - 150 mm dia M.S. Pip	1.00	Set	INR		0.00
18	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 25 mm dia	1820.00	M	INR		0.00
19	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 32 mm dia	317.00	M	INR		0.00
20	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 40 mm dia	290.00	M	INR		0.00
21	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 50 mm dia	189.00	M	INR		0.00

22	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 65 mm dia	264.00	M	INR		0.00
23	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 80 mm dia	390.00	M	INR		0.00
24	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 100 mm dia	200.00	M	INR		0.00
25	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 150 mm dia	220.00	M	INR		0.00
26	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 200 mm dia (wall thickness 6.3 mm)	100.00	M	INR		0.00
27	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required : 250 mm dia (wall thickness 6.3 mm)	100.00	M	INR		0.00
28	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required : Single headed Gunmetal	7.00	Set	INR		0.00
29	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 80 mm dia	2.00	Set	INR		0.00
30	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 100 mm dia	4.00	Set	INR		0.00
31	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 150 mm dia	17.00	Set	INR		0.00

32	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 200 mm dia	6.00	Set	INR		0.00
33	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 250 mm dia	2.00	Set	INR		0.00
34	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 300 mm dia	2.00	Set	INR		0.00
35	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required : 80mm dia	2.00	Set	INR		0.00
36	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required : 150mm dia	12.00	Set	INR		0.00
37	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 100 mm dia	2.00	Each	INR		0.00
38	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 150 mm dia	4.00	Each	INR		0.00
39	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 200 mm dia	4.00	Each	INR		0.00
40	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange. 250 mm dia	2.00	Each	INR		0.00
41	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required. 1000mm	163.00	Set	INR		0.00
42	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required : 40 MM Dia	7.00	Each	INR		0.00
43	Supply, installation, testing and commissioning of Bourden type, stainless steel dial type pressure gauge with isolation valve and pipe having calibration of 0-16 kg/cm2. MAKES: HGURU / FIEBIG .	9.00	Each	INR		0.00

44	Supply and fixing of Co2 type Fire Extinguishers 4.5 Kg capacity confirming to IS 2878 made from ISI marked steam less cylinder confirming to IS:7285 & CE certified and fitted with ISI marked controlled valve confirming to IS:3224, high pressure 1 Mtr discharge hose & horn complete with initial gas charged with carrying handle with wheels and wall mounting bracket. Squeeze lever discharge, used un-used indicator, Aphoxy coated paint (Red) with 93% gloss with 2 years warranty Including transportation, all taxes and all labour charges etc complete. Makes : Cease Fire / Minimax	14.00	Each	INR		0.00
45	Supply and fixing of ABC stored pressure squeeze grip type fire extinguishers, 9 kg capacity, IS:15683 : 2006, filled with ABC Mono Ammonium Phosphate base powder- 90 complete with discharge hose and wall mounting bracket, 2mm Mild Steel, EPDM Rubbers, Pressure Guage, which work effectively on all class of fires (A, B, C & Electrical fires) with 5 years warranty Including transportation, all taxes and all labour charges etc complete. Makes : Cease Fire / Minimax	14.00	Each	INR		0.00
Group E: O&M WORKS		X			Y	Z = X*Y
1	"Schedule -I ('Operation of Electro-Mechanical Services and other facilities for 1st Year i.e., Defect Liability Period having HVAC System, 11/0.433KV Substation & DG Set, Lift, Fire alarm and Fire Fighting System IBMS System, Solar Panel/Solar Work,Saptic tank, Water Supply in the building) 'Supply of manpower for operation of above mentioned electro-mechanical services and other faciities during 1st year of DLP as mentioned in SCC	36.00	month	INR		0.00
2	Schedule -II (Operation and Maintenance of Electro-Mechanical Services and other facilities after Defect Liability Period having HVAC System, 11/0.433KV Substation & DG Set, Lift, Fire alarm and Fire Fighting System IBMS System, Solar Panel/Solar Work, Saptic tank, Water Supply in the building) 'Operation & Maintenance of Electro-Mechanical Services and other facilities i/c repair replacement of installed facilities for proper functioning as mentioned in SCC within stipulated time.	24.00	month	INR		0.00
Total =						#VALUE!
***Bidders shall have to fill up the "Total Bid Value" (under RFx Information > Basic Data > Total Bid Value) taking account of all liabilities including statutory liabilities, Labour Cess etc. in their quoted price (excluding GST)						
Quoted Price:				As quoted in "Total Bid Value"		
*** The bidders should fill up the "Total Bid Value" in figures upto two decimal places only.						
Note:						
1.0	In addition to filling up the "Total Bid Value", this Price Bidding Format must be uploaded by the bidders digitally signed without any input/ alteration from their end in the Price Bidding Format under the “Notes and Attachment” Tab in e-tender portal.					
2.0	The Contractor must quote considering the prevailing minimum labour wage rate for each day of work.					